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Art Unit: 1651 Phone: 272-0916

Serial Number: 09 / 977539

From: Jan Delaval

Location: Biotech-Chem Library

Rem 1A51

Phone: 272-2504

jan.delaval@uspto.gov

Search Notes	
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Requestor's Serial Number: Date: 3/1/64 Phone: 277 - 09/6 Art Unit: 165/ Search Topic: Please write a detailed statement of search topic. Describe specifically as possible the subject matter to be searched. Define any terms that may have a special meaning. Give examples or relevant citations, authors keywords, etc., if known. For sequences, please attach a copy of the sequence. You may include a copy of the broadest and/or most relevant claim(s).

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Elapsed time:	Pre-S	Dialog
CPU time:	Type of Search	APS
Total time:	N.A. Sequence	Geninfo
Number of Searches:	A.A. Sequence	SDC
Number of Databases:	Structure	DARC/Questel
	Bibliographic	Other

PTO-1590 (9-90)

* U.S. GPO: 1995-398-798/22489

USCOMM-DC 90-3952

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FILE COVERS 1907 - 9 Mar 2004 VOL 140 ISS 11 FILE LAST UPDATED: 8 Mar 2004 (20040308/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

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=> d all tot
L86 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN
        2003:492567 HCAPLUS
ΑN
DN
        139:32881
ED
        Entered STN: 29 Jun 2003
        Carrier and specimen-handling tool for use in diagnostic testing
TΤ
        Peterson, Kristy; McMichael, Donald J.
TN
PA
SO
        U.S. Pat. Appl. Publ., 12 pp.
        CODEN: USXXCO
DΤ
        Patent
LA
        English
        ICM C12M001-26
TC
        435309100; 435810000
NCL
         9-1 (Biochemical Methods)
        Section cross-reference(s): 14
FAN.CNT 1
        PATENT NO.
                                    KIND DATE
                                                                        APPLICATION NO. DATE
                                                                         ----- -----
                                                                  US 2001-26200 20011221
WO 2002-US18736 20020613
        US 2003119181 A1 20030626
PΙ
        WO 2003057042
                                    A1 20030717
               W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
              W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
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PRAI US 2001-26200 20011221 Α A diagnostic system may include a carrier having at least one well, an upper surface, and a cavity extending downwardly from the upper surface. A specimen-handling tool may be configured to be positioned within the cavity and may include an elongated body having a longitudinal axis that extends along the length of the elongated body, a first end comprising an outermost portion adapted to skewer a tissue biopsy specimen.

```
carrier specimen handling tool diagnostic testing
ST
IT
     Tools
        (Specimen-handling; carrier and specimen-handling tool for use in
        diagnostic testing)
     Materials handling
IT
        (apparatus; carrier and specimen-handling tool for use in diagnostic
        testing)
     Animal tissue
TT
       Carriers
     Clinical analyzers
     Configuration
       Diagnosis
     Surface
     Test kits
       Wells
        (carrier and specimen-handling tool for use in diagnostic testing)
IT
     Plastics, uses
     Polycarbonates, uses
     RL: DEV (Device component use); USES (Uses)
        (carrier and specimen-handling tool for use in diagnostic testing)
TΤ
    Analysis
        (clin.; carrier and specimen-handling tool for use in diagnostic
        testing)
    ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN
L86
AN
     2003:320162 HCAPLUS
DN
     138:299800
ED
     Entered STN: 25 Apr 2003
     A system for detection of urease in a human gastric sample for diagnosis
TI
     of gastrointestinal bacterial infection
IN
     McMichael, Donald J.; Peterson, Kristy; Marshall,
     Barry J.; Mendis, Aruni H. W.; Chairman, Simon
     Kimberly-Clark Worldwide, Inc., USA
PΑ
SO
     PCT Int. Appl., 34 pp.
     CODEN: PIXXD2
DT
     Patent
     English
LA
IC
     ICM G01N033-48
     7-1 (Enzymes)
     Section cross-reference(s): 14
FAN.CNT 1
     PATENT NO.
                      KIND DATE
                                           APPLICATION NO.
                                                             DATE
     ______
                      _ _ _ _
                            _____
                                           ______
PΙ
    WO 2003034061
                      A2
                            20030424
                                           WO 2002-US29814 20020918
    WO 2003034061
                      Α3
                            20031030
            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
             TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
             CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
             PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
             NE, SN, TD, TG
    US 2003077680
                            20030424
                                           US 2001-977555
                                                             20011015
                       A1
    US 2003077684
                            20030424
                                           US 2001-977874
                       A1 -
                                                             20011015
    US 2003082664
                            20030501
                                           US 2001-977556
                                                             20011015
                       A1
    US 2003082661
                       AΊ
                            20030501
                                           US 2001-977667
                                                             20011015
PRAI US 2001-977555
                       Α
                            20011015
    US 2001-977556
                       Α
                            20011015
```

US 2001-977667

Α

20011015

US 2001-977874 A 20011015

AB A system and method for detecting bacterial infections in the human gastrointestinal tract is disclosed. In one embodiment, the system includes a first composition separated from a second composition The first composition

contains urea in powdered form. The second composition, on the other hand, contains an indicator. A biopsy of a gastric sample is first contacted with the first composition and then placed in the second composition. The second

composition indicates the presence of an enzyme that, in turn, indicates the presence of bacteria. In an alternative embodiment of the present invention, a biopsy of a gastric sample is contacted with a single composition. The composition contains urea in a powdered form combined with a dry indicator. Besides urea and a dry indicator, the composition can also contain an anticaking agent. The system of the present invention can include a container for holding the compns. A specimen handling tool can be included in the container for handling a biopsy sample.

ST urease biopsy detection gastrointestinal bacterial infection diagnosis human; urea anticaking agent indicator urease detn gastrointestinal infection diagnosis

IT Titration

(acid-base, pH adjuster; system for detection of urease in human gastric sample for diagnosis of gastrointestinal bacterial infection)

IT Analytical apparatus

(biochem.; system for detection of urease in human gastric sample for diagnosis of gastrointestinal bacterial infection)

IT Stomach

(biopsy; system for detection of urease in human gastric sample for diagnosis of gastrointestinal bacterial infection)

IT Digestive tract, disease

(infection; system for detection of urease in human gastric sample for diagnosis of gastrointestinal bacterial infection)

IT Diagnosis

(mol.; system for detection of urease in human gastric sample for diagnosis of gastrointestinal bacterial infection)

IT Particle size

(of urea powder; system for detection of urease in human gastric sample for diagnosis of gastrointestinal bacterial infection)

IT Acid-base indicators

Agglomeration preventers

Antibacterial agents

Colorimetric indicators

Containers

Digestive tract

Digestive tract, disease

Films

Gels

Human

Indicators

Powders

Sample preparation

Test kits

(system for detection of urease in human gastric sample for diagnosis of gastrointestinal bacterial infection)

IT 1344-00-9, Sodium aluminosilicate 7631-86-9, Silica, biological studies RL: ARU (Analytical role, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(anticaking agent; system for detection of urease in human gastric sample for diagnosis of gastrointestinal bacterial infection)

IT 9002-18-0, Agar

RL: ARU (Analytical role, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses) (gel; system for detection of urease in human gastric sample for

diagnosis of gastrointestinal bacterial infection) IT 57-13-6, Urea, biological studies RL: ARG (Analytical reagent use); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses) (powder; system for detection of urease in human gastric sample for diagnosis of gastrointestinal bacterial infection) 7664-41-7, Ammonia, biological studies IT RL: ANT (Analyte); ARG (Analytical reagent use); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses) (system for detection of urease in human gastric sample for diagnosis of gastrointestinal bacterial infection) 9002-13-5, Urease ITRL: ANT (Analyte); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses) (system for detection of urease in human gastric sample for diagnosis of gastrointestinal bacterial infection) IT 143-74-8, Phenol red RL: ARG (Analytical reagent use); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses) (system for detection of urease in human gastric sample for diagnosis of gastrointestinal bacterial infection) ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN L86 2003:300536 HCAPLUS ANDN 138:283719 ED Entered STN: 18 Apr 2003 Methods for performing multiple diagnostic tests ΤI McMichael, Donald J.; Peterson, Kristy; Marshall, Barry J. PA SO U.S. Pat. Appl. Publ., 14 pp. CODEN: USXXCO DT Patent LA English IC ICM C12Q001-04 NCL 435034000 9-16 (Biochemical Methods) Section cross-reference(s): 10, 14 FAN.CNT 2 PATENT NO. KIND DATE APPLICATION NO. DATE ----_____ -----PΙ US 2003073155 A1 20030417 US 2001-977539 20011015 <--A2 WO 2002-US28269 20020905 WO 2003033149 20030424 **A3** WO 2003033149 20030731 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG PRAI US 2001-977539 20011015 Α US 2001-977546 Α 20011015 A method for diagnostic testing that includes obtaining a first specimen AB and, in some methods, obtaining a second specimen. The first specimen may be positioned in the first well of a carrier. The second specimen may be positioned in the second well of a carrier. The first well of the carrier may then be separated from the second well of the carrier.

ST

performing diagnostic test

```
IT
     Carriers
     Composition
       Diagnosis
       Helicobacter pylori
       Separation
       Separators
       Wells
        (methods for performing multiple diagnostic tests)
     ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN
     2003:297518 HCAPLUS
AN
ED
     Entered STN: 17 Apr 2003
     Systems for performing multiple diagnostic tests
ΤI
     Marshall, Barry J.; McMichael, Donald J.;
     Peterson, Kristy
PΑ
     Australia
     U.S. Pat. Appl. Publ.
SO
     CODEN: USXXCO
DT
     Patent
LΑ
     English
IC
     ICM G01N021-03
NCL
     422102000; 422058000
FAN.CNT 2
     PATENT NO.
                     KIND DATE
                                          APPLICATION NO. DATE
                     ____
                           -----
                                          ______
PΙ
     US 2003072686
                     A1
                           20030417
                                          US 2001-977546
                                                           20011015
     WO 2003033149
                     A2
                           20030424
                                          WO 2002-US28269 20020905
     WO 2003033149
                     A3
                           20030731
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
            GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
            UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
            TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
             CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
             PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
            NE, SN, TD, TG
PRAI US 2001-977539
                    Α
                           20011015
     US 2001-977546
                     Α
                           20011015
     A diagnostic system for diagnostic testing having a carrier including at
AB
     least one well, and a specimen-handling tool disposed about at least a
     portion of the well.
L86 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN
AN
     2003:297516 HCAPLUS
ED
     Entered STN: 17 Apr 2003
TI
     Systems for diagnostic testing
IN
     Peterson, Kristy; Marshall, Barry J.; McMichael,
    Donald J.
PA
     USA
SO
    U.S. Pat. Appl. Publ.
     CODEN: USXXCO
DT
    Patent
LA
    English
     ICM B01L003-00
     422061000; 422058000; 422099000; 422102000; 422939000; 422941000;
     422945000; 435288300; 435288400
    PATENT NO.
                     KIND DATE
                                          APPLICATION NO. DATE
                     _ _ _ _
ΡI
    US 2003072678
                      A1
                           20030417
                                          US 2001-977547 20011015
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Α1
                            20030424
                                           WO 2002-US17621 20020603
     WO 2003033148
            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
             UA, UG, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
             CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
PRAI US 2001-977547
                            20011015
                      Α
     A diagnostic system for diagnostic testing having a carrier including at
AΒ
     least one well, and a specimen-handling tool disposed about at least a
    portion of the well.
L86
    ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2004 ACS on STN
AN
     2001:760079 HCAPLUS
DN
     135:284999
     Entered STN: 19 Oct 2001
ED
TI
     Method and kit for the early diagnosis of miscarriage in human beings
     Maccarrone, Mauro; Valensise, Herbert; Finazzi, Agro' Alessandro
IN
     Universita Degli Studi Di Roma " Tor Vergata", Italy
PA
SO
     Eur. Pat. Appl., 28 pp.
     CODEN: EPXXDW
DT
     Patent
     English
LA
IC
     ICM C12Q001-34
     ICS C12Q001-68; G01N033-573
     7-1 (Enzymes)
     Section cross-reference(s): 3, 14
FAN.CNT 1
                                           APPLICATION NO.
    PATENT NO.
                      KIND
                            DATE
                                                            DATE
                                           -----
                            20011017
                                           EP 2000-830285
                                                            20000414
PI
    EP 1146128
                      A1
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO
    WO 2001079531
                            20011025
                                           WO 2001-IT189
                                                            20010417
                      A1
            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM,
             HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,
             LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,
             RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ,
             VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                            20030108
                                         EP 2001-925881 20010417
    EP 1272659
                      A1
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRAI EP 2000-830285
                      Α
                            20000414
    WO 2001-IT189
                       W
                            20010417
    The present invention relates to a method for the diagnosis of miscarriage
AB
     in female human beings based on the detection of the presence of the
     enzyme anandamide hydrolase (FAAH) active in blood cells and in particular
     in lymphocytes, and a diagnosis kit useful in the performance of said
    method.
ST
    kit diagnosis miscarriage
    Columns and Towers
IT
        (C18; method and kit for early diagnosis of miscarriage in human
        beings)
IT
    Reaction
        (Enzymic; method and kit for early diagnosis of miscarriage in human
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beings)

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IT
    Solutions
        (Physiol. buffered; method and kit for early diagnosis of miscarriage
        in human beings)
IT
    PCR (polymerase chain reaction)
        (RT-PCR (reverse transcription-PCR); method and kit for early diagnosis
        of miscarriage in human beings)
TΤ
    Immunoassay
        (enzyme-linked immunosorbent assay; method and kit for early diagnosis
        of miscarriage in human beings)
IT
        (enzyme; method and kit for early diagnosis of miscarriage in human
        beings)
IT
    Gene
        (expression; method and kit for early diagnosis of miscarriage in human
        beings)
IT
    Adhesion, physical
    Blood analysis
    Blood cell
    Buffers
       Carriers
    Cell
    Coating materials
    Composition
    Concentration (condition)
    Concentration (process)
    Containers
    Cytolysis
    Detergents
      Diagnosis
    Dilution
    Extraction
    Growth, microbial
    HPLC
    Homogenization
    Lymphocyte
    Mixtures
    Platelet (blood)
    Temperature
    Test kits
    Volume
    Washing
        (method and kit for early diagnosis of miscarriage in human beings)
TТ
    mRNA
    RL: ANT (Analyte); ANST (Analytical study)
        (method and kit for early diagnosis of miscarriage in human beings)
IT
    Antibodies
    RL: ARG (Analytical reagent use); RCT (Reactant); ANST (Analytical study);
    RACT (Reactant or reagent); USES (Uses)
        (method and kit for early diagnosis of miscarriage in human beings)
    Gelatins, analysis
TΤ
    RL: ARU (Analytical role, unclassified); ANST (Analytical study)
        (method and kit for early diagnosis of miscarriage in human beings)
IT
    Proteins, general, analysis
    RL: ARU (Analytical role, unclassified); PEP (Physical, engineering or
    chemical process); RCT (Reactant); ANST (Analytical study); PROC
     (Process); RACT (Reactant or reagent)
        (method and kit for early diagnosis of miscarriage in human beings)
IT
    Laboratory ware
        (reaction vessels; method and kit for early diagnosis of miscarriage in
        human beings)
IT
    Abortion
        (spontaneous; method and kit for early diagnosis of miscarriage in
```

human beings)

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IT
     Wells
        (walls; method and kit for early diagnosis of miscarriage in human
        beings)
     153301-19-0, Anandamide hydrolase
IT
     RL: ANT (Analyte); THU (Therapeutic use); ANST (Analytical study); BIOL
     (Biological study); USES (Uses)
        (method and kit for early diagnosis of miscarriage in human beings)
     330-13-2, p-Nitrophenylphosphate
                                       9001-78-9, Alkaline phosphatase
TT
     RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
        (method and kit for early diagnosis of miscarriage in human beings)
                                                        14265-44-2, Phosphate,
     7732-18-5, Water, analysis
                                 9005-64-5, Tween-20
IT
     analysis
     RL: ARU (Analytical role, unclassified); ANST (Analytical study)
        (method and kit for early diagnosis of miscarriage in human beings)
     497-19-8, sodium carbonate, biological studies 26628-22-8, Sodium azide
TT
     RL: BUU (Biological use, unclassified); BIOL (Biological study); USES
     (Uses)
        (method and kit for early diagnosis of miscarriage in human beings)
              THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT
RE
(1) Maccarrone, M; ANALYTICAL BIOCHEMISTRY 1999, V267, P314 HCAPLUS
(2) Matsunaga, I; JOURNAL OF BIOCHEMISTRY 1998, V124(1), P105 HCAPLUS
(3) Paria, B; BIOLOGY OF REPRODUCTION 1999, V60, P1151 HCAPLUS
(4) Piomelli, D; US 5925672 A 1999 HCAPLUS
     FILE 'HCAPLUS' ENTERED AT 12:46:10 ON 09 MAR 2004
L59
              1 S US20030073155/PN
         514116 S (BIOCHEM? (L) METHOD?) / SC, SX
L60
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                E E26+ALL
           1999 S E3, E2
L61
            152 S L60 AND L61
L62
             19 S L62 AND SEPARAT?/CW
L63
              7 S L62 AND CARRIER?/CW
L64
L65
             25 S L63, L64
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              7 S E6
L66
                E MC MICHAEL D/AU
                E PETERSON K/AU
L67
            152 S E3-E17
                E PETERSON KRIS/AU
              6 S E3, E11
L68
                E MARSHALL B/AU
             73 S E3,E12
L69
             16 S E26-E28
L70
              2 S L66-L70 AND L65
L71
            5 S L66 AND L67-L70
L72
              4 S L67, L68 AND L69, L70
L73
              5 S L72, L73
L74
L75
              5 S L59,L71-L74
           1610 S WELL#/CW AND CARRIER#/CW
L76
              4 S L76 AND SEPARAT?/CW
L77
              3 S L76 AND DIAGNO?/CW
L78
              1 S L76 AND (H OR HELICOBACT? OR HELICO BACT?) () PYLOR?
L79
```

1 S L76 AND HELICOBACT?

E HELICOBACTER/CT

E CAMPYLOBACTER/CT

6570 S E3-E36

7734 S E4+NT

3690 S E3-E48 E E3+ALL

E E3+ALL

L80

L81

L82

L83

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L84
           2606 S E4+NT
              1 S L76 AND L81-L84
L85
              6 S L75, L78-L80, L85 AND L59-L85
L86
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=> => d his
     (FILE 'HOME' ENTERED AT 13:09:03 ON 09 MAR 2004)
                SET COST OFF
     FILE 'WPIX' ENTERED AT 13:09:13 ON 09 MAR 2004
              1 S US20030073155/PN
L1
          54419 S C12Q001/IC, ICM, ICS
L2
Ь3
          16021 S C12M001/IC, ICM, ICS, ICA, ICI
            374 S L2 AND (B11-C08C OR C11-C08C)/MC
L4
            254 S L2 AND (B11-C06 OR C11-C06)/MC
L5
           4687 S L2 AND L3
L6
           5089 S L4-L6
L7
            508 S L7 AND C120001-04/IC, ICM, ICS
L8
             88 S L7 AND (B04-F10A OR C04-F10A OR B04-B02B1 OR C04-B02B1)/MC
L9
             17 S L7 AND ((H OR HELICOBACT? OR HELICO BACT?)()PYLOR?)/BIX
L10
            626 S L7 AND (B04-F10# OR C04-F10# OR B04-F09# OR C04-F09# OR B04-F
L11
             15 S L7 AND (CAMPYLOBACT? OR CAMPYLO BACT?)/BIX
L12
L13
             32 S L10, L12
             32 S L13 AND L2-L13
L14
                SEL PN APPS 5 6 11 14 15
                SEL PN L14 5 6 11 14 15
              5 S E21-E28
L15
             16 S L4 AND L5
L16
L17
             15 S L16 NOT L14
                SEL DN 1 12 15
L18
              3 S E29-E34
             59 S L6 AND C12M001-18/IC, ICM, ICS
L19
                SEL DN AN 7 8 10 13 14 16 20-23 38 39 49 55 57
L20
             15 S E36-E67
L21
             23 S L15, L18, L20
            293 S L2 AND ((H OR HELICOBACT? OR HELICO BACT?)()PYLOR?)/BIX
L22
L23
            311 S L2 AND (HELICOBACT? OR HELICO BACT?)/BIX
            137 S L2 AND (CAMPYLOBACT? OR CAMPYLO BACT?)/BIX
L24
L25
            438 S L22-L24
             14 S L8 AND L25
L26
              8 S L25 AND (B11-C08C OR C11-C08C)/MC
L27
              2 S L25 AND (B11-C06 OR C11-C06)/MC
L28
              0 S L2 AND C12M001-18/IC, ICM, ICS NOT L19
L29
L30
            272 S L25 AND D05-H09/MC
            266 S L25 AND (B12-K04A? OR C12-K04A?)/MC
L31
            364 S L30, L31
L32
             20 S L32 AND L3
L33
                SEL DN AN 3
L34
              1 S E68-E69
             23 S L21, L34 AND L1-L34
L35
                E MARSHALL B/AU
             51 S E3,E11
L36
                E MCMICHAEL D/AU
             13 S E5
L37
                E MC MICHAEL D/AU
                E PETERSON K/AU
L38
            214 S E3-E24
                E KIMBERLEY/PA
L39
           4129 S E4-E9, E35-E44
L40
             24 S L2 AND L36-L39
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7 S L40 AND C12M/IC, ICM, ICS

L41

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11 S L36-L39 AND C12M/IC, ICM, ICS
L42
             11 S L41, L42
L43
L44
             14 S L36-L38 AND L39
T.45
             40 S L40-L44
                SEL DN AN 10 15 16 17 32
              5 S E1-E13
L46
             27 S L35, L46 AND L1-L46
L47
             17 S L36-L39 AND (HELICOBACT? OR CAMPYLOBACT? OR PYLOR?)/BIX
L48
L49
             6 S L48 NOT L45
              4 S L47 AND L48
L50
             27 S L47,L50
L51
=> fil wpix
FILE 'WPIX' ENTERED AT 13:31:20 ON 09 MAR 2004
COPYRIGHT (C) 2004 THOMSON DERWENT
                                            <20040305/UP>
                            5 MAR 2004
FILE LAST UPDATED:
MOST RECENT DERWENT UPDATE:
                                200416
                                              <200416/DW>
DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE
>>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,
    PLEASE VISIT:
 http://www.stn-international.de/training center/patents/stn_guide.pdf <<<
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    http://thomsonderwent.com/support/userguides/
                                                                 <<<
>>> ADDITIONAL POLYMER INDEXING CODES WILL BE IMPLEMENTED FROM
    DERWENT UPDATE 200403.
    THE TIME RANGE CODE WILL ALSO CHANGE FROM 018 TO 2004.
    SDIS USING THE TIME RANGE CODE WILL NEED TO BE UPDATED.
    FOR FURTHER DETAILS: http://thomsonderwent.com/chem/polymers/ <<<
=> d all abeq tech abex tot
L51 ANSWER 1 OF 27 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
     2004-100396 [11]
                        WPIX
AN
                        DNC C2004-041642
DNN N2004-079986
     Disposable sample carrier, for mass spectrometry of bio-molecules, has a
TI
     high precision sub-structure for repeated use covered by a disposable thin
     plastics layer with the prepared sample wells.
     B04 D16 J04 S03
DC
IN
     SCHUERENBERG, M
     (BRUK-N) BRUKER DALTONIK GMBH
PΑ
CYC
     DE 10230328
                   A1 20040115 (200411)*
                                               9p
                                                      G01N027-64
     GB 2391066
                  A 20040128 (200413)
                                                     H01J049-04
     DE 10230328 A1 DE 2002-10230328 20020705; GB 2391066 A GB 2003-15646
ADT
     20030703
PRAI DE 2002-10230328 20020705
     ICM G01N027-64; H01J049-04
IC
     ICS C12M001-34; C12Q001-68; G01N001-28; G01N033-48
     DE 10230328 A UPAB: 20040213
AB
     NOVELTY - The disposable sample carrier, for mass spectrometry, having a
     composite structure, is new.
          DETAILED DESCRIPTION - The disposable sample carrier, for mass
     spectrometry, has a composite structure. The sub-structure (3) has a high
```

mechanical strength with a high precision in its fabrication, and a removable relatively thin plastics layer (1) with a consistent thickness fitted with matrix-filled micro-titration sample wells (10), held in place by tongues (2). The sub-structure can be used repeatedly after the plastics layer has been removed and discarded. The sub-structure carries an identification as a barcode (7) and a transponder (8), and has a recess (9) for gripping by a robot arm. USE - The disposable sample carrier is for use with matrix assisted

laser desorption ionization (MALDI) mass spectrometry, in the analysis of

bio-molecules e.g. DNA and RNA, glyco- and lipoproteins.

ADVANTAGE - The sample carrier is inexpensive and can be prepared by the supplier with the required matrix, etc., to be held in a magazine for immediate use in an automated pipetting system.

DESCRIPTION OF DRAWING(S) - The drawing shows a perspective view of the sample carrier.

plastics layer 1

tonques 2

sub-structure 3

barcode 7

transponder 8

recess for a robot arm grip 9 micro-titration wells 10

Dwg.3/3

FS CPI EPI

FΑ AB; GI

CPI: B04-E03; B04-N05; B04-N06; B11-C06; B11-C08A; MC

B11-C08C; B11-C08D; B12-K04; B12-K04E; D05-H08; D05-H09;

D05-H13; J04-B01; J04-B01B

EPI: S03-E10; S03-E14H

UPTX: 20040213 TECH

TECHNOLOGY FOCUS - METALLURGY - Preferred Apparatus: The sub-structure is of fine steel, hard aluminum or titanium.

L51 ANSWER 2 OF 27 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

2003-765585 [72] WPIX AΝ

DNC C2003-210204

Specimen-handling tool for use with diagnostic test kit for diagnostic ΤT testing, has elongated body, and first end comprising outermost portion to skewer tissue biopsy specimen and inclined upper and lower surfaces.

DC A96 B04 P31

MCMICHAEL, D J; PETERSON, K TN

(MCMI-I) MCMICHAEL D J; (PETE-I) PETERSON K; (KIMB) KIMBERLY-CLARK PΑ WORLDWIDE INC

CYC 100

US 2003119181 A1 20030626 (200372)* C12M001-26 PΙ 12p WO 2003057042 A1 20030717 (200372) EN A61B010-00

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW

US 2003119181 A1 US 2001-26200 20011221; WO 2003057042 A1 WO 2002-US18736 20020613

PRAI US 2001-26200 20011221

ICM A61B010-00; C12M001-26

B01L003-00

US2003119181 A UPAB: 20031107 AB

NOVELTY - A specimen-handling tool comprises an elongated body with a longitudinal axis extending along the length of the body, and two ends. The first end comprises an outermost portion adapted to skewer a tissue biopsy specimen and inclined upper and lower surfaces. The outermost portion is formed as a truncated crescent so that its tip is not aligned with the longitudinal axis.

DETAILED DESCRIPTION - A specimen-handling tool (24) comprises an elongated body (62) with a longitudinal axis extending along the length of the body, and two ends. The first end (58) comprises an outermost portion (66) adapted to skewer a tissue biopsy specimen. The outermost portion is formed as a truncated crescent so that the tip of the crescent is not aligned with the longitudinal axis of the body. The first end further comprises upper and lower surfaces (68, 70) that are inclined toward the upper surface. The upper surface is inclined toward the lower surface.

An INDEPENDENT CLAIM is also included for a diagnostic system comprising a carrier having well(s), upper surface (74), and a cavity extending downwardly from the upper surface; and the inventive specimen-handling tool positioned in the cavity of the carrier.

USE - For use with a diagnostic test kit for diagnostic testing for biological test specimens, e.g. blood, tissue biopsies, and saliva.

ADVANTAGE - The invention assists the user in accomplishing particular tasks, e.g. manipulating a specimen.

DESCRIPTION OF DRAWING(S) - The figure shows a perspective view of the specimen-handling tool.

Specimen-handling tool 24

Rib 54

First end 58

Body 62

Gripping portion 64

Outermost portion 66

Upper and lower surfaces 68, 70

Upper surface 74

Dwg.7/18

FS CPI GMPI

FA AB; GI

TECH

MC CPI: A12-V03C2; B04-B04D; B04-B04L; B04-C03D; B11-C04; B11-C09

UPTX: 20031107

TECHNOLOGY FOCUS - INSTRUMENTATION AND TESTING - Preferred Component: The second end further comprises a curved upper surface. A gripping portion (64) is disposed between the ends and comprises rib(s) (54). The wells are D-shaped and the carrier is rectangular.

TECHNOLOGY FOCUS - POLYMERS - Preferred Material: The tool is formed of a rigid plastic, preferably polycarbonate. The carrier is formed from polycarbonate.

L51 ANSWER 3 OF 27 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

AN 2003-605956 [57] WPIX

CR 2003-555945 [52]

DNN N2003-483041 DNC C2003-164978

Diagnostic system for testing e.g. tissue biopsy comprises specimen handling tool fitted within cavity of carrier and having wells separated by perforations.

DC A89 B04 S03 S05

IN MARSHALL, B J; MCMICHAEL, D J; PETERSON, K

PA (MARS-I) MARSHALL B J; (MCMI-I) MCMICHAEL D J; (PETE-I) PETERSON K; (KIMB) KIMBERLY-CLARK WORLDWIDE INC

CYC 101

PI US 2003072686 A1 20030417 (200357)* 14p G01N021-03 WO 2003033149 A2 20030424 (200357) EN B01L003-00

RW: AT BE BG CH CY CZ DE DK EA EE ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SK SL SZ TR TZ UG ZM ZW

W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VC VN YU ZA ZM

ADT US 2003072686 A1 US 2001-977546 20011015; WO 2003033149 A2 WO 2002-US28269

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20020905
                      20011015; US 2001-977539
                                                 20011015
PRAI US 2001-977546
     ICM B01L003-00; G01N021-03
IC
     ICS B01L011-00
     US2003072686 A UPAB: 20030906
ΔR
     NOVELTY - Diagnostic system has carrier (22) with pair of wells (26,28)
     which are separated by perforation (35). A specimen handling tool (24) has
     two arms that are connected to each other to form a joined narrow
     projection, which is fitted within the cavity (30) of the carrier, to
     manipulate specimen.
          DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for the
          USE - For performing multiple diagnostic testing of specimens such as
     blood, tissue biopsies and saliva for presence of e.g.
     Helicobacter pylori.
          ADVANTAGE - Since the wells are separated by perforations, the
     processing, monitoring, handling and storage of test specimens is
     performed automatically and easily within the cavity of the carrier. The
     specimen is accurately positioned within the cavity by the specimen
     handling tool, so enhancing the overall performance and efficiency of the
     diagnostic system.
          DESCRIPTION OF DRAWING(S) - The figure shows a perspective view of
     the diagnostic system.
     Carrier 22
     Handling tool 24
     Wells 26,28
     Cavity 30
     Perforation 35
     Dwg. 1/17
FS
     CPI EPI
FΑ
     AB; GI; DCN
     CPI: A12-L04B; B04-B04D; B04-B04G; B04-B04L; B04-F01; B04-F10A; B11-C08;
MC
          B12-K04A
     EPI: S03-E14H; S03-E15; S05-C01; S05-C02; S05-C03
                    UPTX: 20030906
TECH
     TECHNOLOGY FOCUS - POLYMERS - Preferred Carrier: The carrier comprises
     material such as plastic including polycarbonate, polystyrene,
     polypropylene, polyethylene, polyvinylchloride and other type of
     polyolefin.
L51 ANSWER 4 OF 27 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
                        WPIX
     2003-605955 [57]
AN
                        DNC C2003-164977
DNN N2003-483040
     System for diagnostic testing biological samples such as tissue biopsy for
ΤI
     determining specific bacteria, comprises carrier with two wells and
     specimen-handling tool disposed about portion of wells.
     A23 A89 B04 P31 S03
DC.
     MARSHALL, B J; MCMICHAEL, D J; PETERSON, K
IN
     (MARS-I) MARSHALL B J; (MCMI-I) MCMICHAEL D J; (PETE-I) PETERSON K; (KIMB)
PΑ
     KIMBERLY-CLARK WORLDWIDE INC
CYC
    100
     US 2003072678 A1 20030417 (200357)*
                                                      B01L003-00
PΙ
                                              14p
     WO 2003033148 A1 20030424 (200357) EN
                                                     B01L003-00
        RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
            NL OA PT SD SE SL SZ TR TZ UG ZM ZW
         W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK
            DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR
            KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT
            RO RU SD SE SG SI SK SL TJ TM TN TR TT TZ UA UG UZ VN YU ZA ZM ZW
     US 2003072678 A1 US 2001-977547 20011015; WO 2003033148 A1 WO 2002-US17621
     20020603
PRAI US 2001-977547
                      20011015
     ICM B01L003-00
```

ICS A61B017-30

AB US2003072678 A UPAB: 20030906

NOVELTY - A system (20) for diagnostic testing comprises a carrier (22) having a first and second wells (26,28) and a specimen-handling tool (24) disposed about at least a portion of the first or second well.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

- (1) a carrier; and
- (2) a specimen handling tool.

USE - For use in diagnostic testing of biological specimens such as tissue biopsies, blood or saliva for determining the presence of e.g. Helicobacter pylori.

ADVANTAGE - The system is utilized for many types of diagnostic testing.

DESCRIPTION OF DRAWING(S) - The figure shows a perspective view of system, carrier and specimen-handling tool.

Diagnostic system 20

Carrier 22

Specimen-handling tool 24 First and second wells 26,28

Dwg.1/17

FS CPI EPI GMPI

FA AB; GI; DCN

MC CPI: A05-E06; A12-L04B; B04-B04D; B04-B04G; B04-C03D; B04-F01; B04-F10;

B11-C08; B12-K04A4 EPI: S03-E14H; S03-E15

TECH

UPTX: 20030906

TECHNOLOGY FOCUS - POLYMERS - Preferred Component: The carrier is formed from polycarbonate.

L51 ANSWER 5 OF 27 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

AN 2003-555945 [52] WPIX

CR 2003-605956 [57]

DNC C2003-150083

TI Diagnostic testing comprises obtaining first specimen and second specimen, positioning first and second specimen in first and second well of carrier, respectively, and separating first well from second well of carrier.

DC B04

IN MARSHALL, B J; MCMICHAEL, D J; PETERSON, K

PA (MARS-I) MARSHALL B J; (MCMI-I) MCMICHAEL D J; (PETE-I) PETERSON K

CYC 1

PI US 2003073155 A1 20030417 (200352)* 14p C12Q001-04 <--

ADT US 2003073155 A1 US 2001-977539 20011015

PRAI US 2001-977539 20011015

IC ICM C12Q001-04

AB US2003073155 A UPAB: 20030906

NOVELTY - Diagnostic testing (M1) comprises obtaining a first specimen and a second specimen; positioning the first and second specimen in a first and a second well (26, 28) of a carrier (22), respectively; and separating the first well from the second well of the carrier.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for:

- (1) diagnostic testing (M2) comprises:
- (a) providing a carrier having a first and second well that are seperated, and a specimen handling tool disposed within at least a portion of the carrier;
- (b) obtaining a first specimen and a second specimen; positioning the first and second specimen in a first and a second well (26, 28) of a carrier (22), respectively; and
- (c) separating the first well from the second well of the carrier; and
- (2) a method (M3) for conducting diagnostic testing comprising obtaining a first and second biopsy specimen, disposing of the first and second specimen in a first and second well of a carrier, and separating

the first and second wells.

USE - For determining the presence of Helicobacter

pylori (claimed).

ADVANTAGE - The first well can be separated from the second the well, thus test for a particular bacteria may be disposed in the first well, while the second well may contain a composition, which test for a different bacteria.

DESCRIPTION OF DRAWING(S) - The figure is a perspective view of a system, carrier and specimen-handling tool.

Carrier 22

Specimen handling tool 24
First and second well 26, 28
Cavity 30

Elongated sides 38

Gap 48 Dwg.1/17

FS CPI FA AB; GI

MC CPI: B04-F10A; B11-C06; B11-C08C; B12-K04A

TECH UPTX: 20030813

TECHNOLOGY FOCUS - INSTRUMENTATION AND TESTING - Preferred Method: The first and second specimens are subjected to a test. The second specimen is preserved for use in a subsequent test. A specimen handling tool (24) is disposed within a portion(s) of the carrier. The separator is disposed between the first and second well of the carrier. A composition that detects Helicobacter pylori is provided in the first and second well. (M2) and (M3) further comprises subjecting the first and second specimen to a test to determine the presence of Helicobacter pylori.

L51 ANSWER 6 OF 27 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN AN 2003-466222 [44] WPIX

DNC C2003-124319

TI Apparatus for carrying out sample preparation and detection of panels of target nucleic acids and antigens in a sample, has sample preparation zone, three dimensional capture probe platforms and spacer elements.

DC B04 D16

IN COLLINS, M L

PA (NANO-N) NANOGEN INC

CYC 1

PI US 2003032029 A1 20030213 (200344)* 41p C12Q001-70 <--ADT US 2003032029 A1 Cont of US 1998-217472 19981221, US 2002-96718 20020312 PRAI US 1998-217472 19981221; US 2002-96718 20020312

IC ICM C12Q001-70

ICS C12M001-34; C12Q001-68

AB US2003032029 A UPAB: 20030710

NOVELTY - An apparatus (I) for carrying out sample preparation and multiplex detection of panels of target nucleic acids and antigens in a sample, comprising a sample preparation zone, several three dimensional capture probe platforms for capturing specific classes of target molecules, and spacer elements for separating the sets of three dimensional capture probe platforms.

DETAILED DESCRIPTION - An apparatus (I) for carrying out sample preparation and multiplex detection of panels of target nucleic acids and antigens in a sample, comprises a sample preparation zone, several three dimensional capture probe platforms for capturing specific classes of target molecules, the three dimensional platforms further comprising sets of platforms, the sets are further physically separated from one another, and further having capture probes that are specific for capturing any one specific class of the target molecule, and spacer elements for separating the sets of three dimensional capture probe platforms, the sets and spacer elements further arranged so as to allow a sample to pass in succession

from one set through a spacer element to another set.

UPTX: 20030710

USE - (I) is useful for carrying out multiplex detection of panels of target nucleic acids and antigens in a sample, by providing a sample containing target nucleic acids and/or antigens of interest, treating the sample with a sample buffer to form a pre-processed sample, passing the pre-processes sample over (I), capturing the target nucleic acids and antigens by capture probes of (I), reacting a label with a signal probe, the signal probe having specificity for at least one other signal probe that is specific for the target and detecting the reacted level in any of (I) (claimed).

ADVANTAGE - (I) provides simple and efficient sample pre-processing and test methodology, as well as a simple and environmentally friendly detection methodology.

DESCRIPTION OF DRAWING(S) - The figure shows a five different formats for capturing and labeling nucleic acid targets. Dwg.1/9

FS CPI

AB; GI; DCN FA

CPI: B04-B03C; B04-B04C; B04-E01; B04-E05; B04-F01; B04-N04; B11-C08E; B11-C08F2; B12-K04E; B12-K04F; D05-H04; D05-H05; D05-H06; D05-H07; D05-H08; D05-H09; D05-H12D1; D05-H18

TECH

TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred Apparatus: The capture probe platforms are transparent to visible light transmission and the spacer elements are opaque to visible light transmission. The spacer elements have an outer surface that has a high reflective index. The capture probe platforms have attached to the number of oligonucleotides. The oligonucleotides have a base sequence that is unique for each of the sets of platforms. The panel is directed to the multiplex detection of nucleic acids and antigens derived from an infective agent selected from pathogenic microorganism, bacterium, protozoan, virus, fungus and prion. The capture probes of any given set of the sets are complementary to nucleic acid probes that are themselves complementary in part to nucleic acids derived from a the above microorganisms. The panel is directed to the multiplex detection of nucleic acids and antigens associated with a disease state selected from acquired immune deficiency, hepatitis, venereal diseases, respiratory disease, diarrheal illness, viral infection, bacterial infection, protozoan infection, heart disease and cancer. The capture probes of any given set of the sets are complementary to nucleic acids probes that are themselves complementary in part to nucleic acids of an organism selected from Salmonella sp., Escherichia coli strains, Shigella sp., Campylobacter sp., Listeria sp., Yersinia sp., Vibrio cholerae, Neisseria gonorrhea, Trichomonas, T.pallidum, Chlamydia, Candida, Giardia lamblia, Cryptosporidium, and total coliforms. The capture probes of any given set of the sets are complementary to nucleic acid probes that are themselves complementary in part to nucleic acids of a virus selected from the group consisting of rous sarcoma virus (RSV), human papillomavirus (HPV), herpes simplex virus (HSV), HIV, hepatitis C virus (HCV), HBV, HGV, HDV, HEV, human T-cell lymphotropic virus (HTLV)-1, and HTLV-2. The capture probes of any given set of the sets are complementary to nucleic acid sequences that are themselves attached to antibodies specific for antigens derived from the above mentioned viruses. The panel is directed to the multiplex detection of the above mentioned viruses or nucleic acids and/or antigens selected from the group consisting of HIV gag RNA, HIV envelope RNA, HIV polymerase RNA, HIV encoded proteins, immune cell derived molecules, cytomegalovirus, antigens or nucleic acids derived from the presence of Kaposi's sarcoma, drug metabolites, and antigens or nucleic acid derived from pneumocystis infection. The panel is directed to the multiplex detection of the above mentioned organisms. The panel is directed to the multiplex detection of hepatitis virus and associated clinical markers selected from hepatitis A, hepatitis B, hepatitis C, hepatitis D, hepatitis E, hepatitis G, ALT, AST and drug metabolites. The panel is directed to the multiplex detection of

sexually transmitted diseases caused by pathogenic agents selected from the above mentioned organisms. The multiplex detection of respiratory pathogens and/or resistance of such pathogens to anti-tuberculosis (TB) drugs selected from pneumonia causing bacteria, RSV, Mycobacterium africanum, M. bovis, M. microti, and M. tuberculosis. The apparatus further comprises the elements of a inert filter zone for filtering particulate material from a sample, a porous element zone for filtering small ionic materials from a sample, several zones comprising enzymes for carrying out digestions of sample-derived materials, a sample temperature adjustment zone, several re-circulation zones where a sample may be imported into the apparatus, the above elements further connected together in any sequence while a sample may pass from one element to another and to any further pass to the sets.

```
T.51
    ANSWER 7 OF 27 WPIX COPYRIGHT 2004 THOMSON DERWENT ON STN
     2003-147505 [14]
                        WPIX
ΔN
                        DNC C2003-038024
DNN N2003-116468
     Device for determining the presence or absence of an analyte in a fluid
TT
     sample, e.g., blood, serum, urine, comprises mobilization zone with
     detectable tracer molecule, sample application area, and primary and
     secondary capture areas.
     B01 B04 D16 S03
DC
     BAUER, J S; HYATT, T P; WANG, H
IN
     (BAUE-I) BAUER J S; (HYAT-I) HYATT T P; (WANG-I) WANG H
PA
CYC
     US 2002142291 A1 20021003 (200314)*
                                              24p
                                                     C12M001-34
PI
     US 2002142291 A1 Provisional US 2000-197365P 20000414, Provisional US
     2000-203696P 20000511, US 2001-835304 20010413
                     20010413; US 2000-197365P 20000414; US 2000-203696P
PRAI US 2001-835304
     20000511
IC
     ICM C12M001-34
         C12M003-00; C12N005-06; C12N005-16; C12Q001-70; G01N033-53;
          G01N033-543
     US2002142291 A UPAB: 20030227
AB
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- (a) in a fluid sample comprises:(1) mobilization zone comprising a mobile/mobilizable detectable
 - (1) mobilization zone comprising a mobile/mobilizable detectable tracer molecule (DTM);
 - (2) sample application area (SA);
 - (3) primary capture area (c1) and secondary capture area (c2);

NOVELTY - A new device for determining presence or absence of an analyte

- (4) (SA), (c1) and (c2) in fluid continuous contact; and
- (5) during operation, (DTM) contacts (c1) after the sample contacts (c1).

DETAILED DESCRIPTION - A new device for determining presence or absence of an analyte (a) in a fluid sample comprises:

- (1) a mobilization zone comprising a mobile or mobilizable detectable tracer molecule (DTM);
 - (2) a sample application area (SA);
- (3) primary capture area (c1) and secondary capture area (c2) comprising a first and second immobilized binding partner respectively, both having a binding affinity for (a) and (DTM);
- (4) (SA), (c1) and (c2) are in fluid continuous contact and the first immobilized binding partner has an equal or a lower apparent affinity for (a) than it has for (DTM); and
- (5) during operation of the device, (DTM) contacts (c1) after the sample contacts (c1).

INDEPENDENT CLAIMS are also included for the following:

- (1) Detection and/or quantitation (M1) of (a) in a fluid sample comprising:
- (a) applying a liquid sample to a substrate along which the samples migrate sequentially to a primary capture area (c1) and secondary capture area (c2).(c1) binds the analyte with an equal or a lower apparent affinity than it binds a (DTM) and (c2) binds (DMT) with high affinity;

and

- (b) reading a detectable signal from bound (DTM) in (c2).
- (2) Detection and/or quantitation (M2) of (a) in a fluid sample comprises contacting the fluid sample with the device; and
- (3) A test kit for the detection and/or the determination of an analyte in a sample containing the chromatographic assay device and instructions.

USE - To detect analytes in various types of fluid, including biological specimens (e.g. blood, serum, plasma, urine, saliva) (all claimed). To detect analytes in milk and environmental samples (preferably industrial plant effluent or natural fluids). Also for detection and/or quantitation of any known analyte with an appropriate analyte-specific antibody or other binding partner.

ADVANTAGE - The method is sensitive, rapid and single step and also quantify both large and small analytes at low concentrations (preferably ng/ml or less).

Dwg.0/6

FS CPI EPI

FA AB; DCN

MC CPI: B01-A02; B01-C04; B01-C05; B04-B04B1; B04-B04C; B04-B04D; B04-B04G; B04-B04K; B04-G01; B04-J01; B04-J02; B05-A01B; B06-D07; B07-D12;

B08-D01; B10-B02E; B10-B04B; B10-D03; B11-C07A; B12-K04A;

B12-K04E; **D05-H09**; D05-H11

EPI: S03-E14H4

TECH

UPTX: 20030227

TECHNOLOGY FOCUS - INORGANIC CHEMISTRY - Preferred Methods: (M1) additionally involves applying a (DTM). The detectable signal has an intensity, which correlates with the analyte in the sample. The first and second binding partners are immobilized on the substrate. (a) is applied to the device no earlier than the sample is applied to the device and additionally involves quantifying the amount of (a) in the sample. The analyte tracer conjugate is mixed with the sample prior to application to the sample application area. (M2) additionally involves providing an oral fluid sample combined with a bile acid or bile salt (0.1 - 1 wt.%) to reduce occurrence of false positives in the immunoassay and contacting a chelator of divalent cations with the oral fluid sample. Preferred Component: The amount of (a) in the sample is proportional to the signal in the second capture area and the molecular weight is 100 -1000 (preferably greater than 1000) Daltons. The sample is fluid sample selected from urine, blood, tears, sweat or saliva (preferably saliva) migrates along the test strip device by capillary action.

TECHNOLOGY FOCUS - PHARMACEUTICALS - Preferred Kit: The kit additionally comprises aliquot of analyte-tracer conjugate. Preferred Components: The first and second immobilized binding partners are selected from antibodies, antigens and haptens. The reagent is at least one buffer, detergent or anticoagulants. The tracer molecule comprises an analyte molecule (preferably therapeutic drug, drugs of abuse and products of the metabolism of drugs of abuse (e.g. tetrahydrocannabinol, nicotine, cotinine, ethanol, theophylline, phenytoin, acetaminophen, lithium, diazepam, nortryptyline, secobarbital, phenobarbital, methamphetamine, fragments, mimetics, analogs or their derivatives), hormones (preferably testosterone, estradiol, estriol, 17-hydroxyprogesterone, progesterone, thyroxine, thyroid stimulating hormone, follicle stimulating hormone, luteinizing hormone, fragment, mimetics, analogs or their derivatives), antigens of infectious diseases, antibodies to antigens of infectious diseases, growth factors or haptens). The tracer molecule comprises a visually detectable label. Preferred Method: The detectable tracer molecule is applied to the substrate before, after or simultaneously with the sample.

TECHNOLOGY FOCUS - BIOLOGY - Preferred Components: The first and second binding agents (preferably anti-analyte antibodies e.g. antibodies to HIV,

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antibodies to HTLV, antibodies to Helicobacter pylori, antibodies to hepatitis, antibodies to measles, antibodies to mumps or antibodies to rubella) for the analyte are identical.

TECHNOLOGY FOCUS - INSTRUMENTATION AND TESTING - Preferred Device: The detectable tracer molecule is associated with the device in such a way that, during operation of the device, it contacts the primary capture area after a sample contacts the primary capture area. During operation of the device DTM migrates through the device at a rate slower than a rate at which the analyte in a sample migrates through the device due to a molecular weight of the tracer molecule (preferably a physical or temporal placement of the tracer molecule on the device). The tracer molecule is placed on the device after a sample is placed on the device. The device additionally contains at least on filter pad pretreated with at least one reagent to enhance the sensitivity of the assay device in a path flow of the fluid. The area of the secondary specific binding partner immobilized on the chromatographic medium is divided into at least two discrete and non-overlapping bands, with the quantity of the second specific binding partner in each band being such that the quantity of tracer molecule binding to (c2) and by correlation the amount of the analyte in a tested sample is indicated by the number of bands to which the tracer molecule binds.

ABEX

UPTX: 20030227

EXAMPLE - Cotinine solution was prepared in a saliva matrix. A polyester test strip was prepared. To a mixture (0.25 ml) of dimethylformamide and pyridine was added trans-4-carboxycotinine , N-hydroxysuccinimide (5 mg) and 1-ethyl-3-(3-dimethylaminopropyl) carbodiimide hydrochloride (15 mg). The mixture was rotated for 1 hour to form an active ester. A aliquot (50 microl) of the ester was added to BSA solution (1 ml) in phosphate buffer. The reaction mixture was rotated at room temperature for 4 hours and dialyzed to give BSA-cotinine conjugate. To carboxyl latex particles (1 ml) in phosphate buffer was added 1-ethyl-3-(3dimethylaminopropyl)carbodiimide (10 mg). The mixture was shaken for 20 minutes at room temperature. The activated latex particles were centrifuged and suspended in the conjugate (1 mg/ml). The mixture was worked up to give cotinine-tracer conjugate. The cotinine solution was added to sample well of each test strip and allowed to absorb for 10 - 30 seconds. The conjugate (20 microl) was added to the sample well and allowed to develop. The results showed that cotinine on strip at concentrations (ng/ml) of 10/50/100/200 as no test line/weak test line/strong test line/very strong test line.

ypr

L51 ANSWER 8 OF 27 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN AN 2002-316641 [36] WPIX

DNC C2002-092185

TI Microtiter plate for use in fluorescence analysis, e.g. for immunoassays, comprises upper plate with bores passing through it which fits on to lower plate with wells containing mobile filters.

DC A89 B04 D16 J04

IN POSCHEN, L; WILHELM, R

PA (KERJ) FORSCHUNGSZENTRUM JUELICH GMBH

CYC 3

PI DE 10035750 A1 20020207 (200236)* 9p C12M001-12 GB 2365126 A 20020213 (200236) B01L003-00 NL 1018571 C2 20020129 (200236) B01L003-00 GB 2365126 B 20040218 (200413) B01L003-00

ADT DE 10035750 A1 DE 2000-10035750 20000722; GB 2365126 A GB 2001-17297 20010716; NL 1018571 C2 NL 2001-1018571 20010718; GB 2365126 B GB 2001-17297 20010716

PRAI DE 2000-10035750 20000722

C ICM B01L003-00; C12M001-12

ICS B01L007-00; C12M001-18; C12Q001-68; G01N001-28; G01N033-53

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DE 10035750 A UPAB: 20020610
AΒ
    NOVELTY - Microtiter plate for use in fluorescence analysis, comprising an
    upper plate (1) with bores (2) passing through it, is new. This fits on to
    a lower plate (3) with wells containing mobile filters (5). A pump is
    connected to the wells, either directly or via a base plate which is
     sealed on to the lower plate.
          DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for a filter
     system comprising individual filters (5) connected by straps (6).
          USE - In purification of DNA samples, polymerase chain reaction (PCR)
    or immunoassays.
          ADVANTAGE - Large numbers of samples containing a small amount of
    material can be processed under the same conditions. Direct optical
     analysis can be carried out.
          DESCRIPTION OF DRAWING(S) - The drawings show plan views of the upper
     and lower straps.
    Upper plate 1
          Bore in upper plate 2
     Lower plate 3
     Filter 5
          Connecting strap 6
          Ring surrounding filter 7.
    Dwg.1, 2/6
FS
    CPI
    AB; GI; DCN
FA
    CPI: A12-L04B; B04-C02A; B04-C03B; B04-E01; B04-E05; B04-G01; B04-L04A;
MC
          B05-A01B; B05-A03B; B05-B02C; B10-G03; B11-C07A; B11-C07A5;
          B11-C08E5; B12-K04; B12-K04F; D05-H09; D05-H11; D05-H12D1; D05-H18B;
          J04-B01B
                    UPTX: 20020610
TECH
     TECHNOLOGY FOCUS - POLYMERS - Preferred Apparatus: The plates are made
     from VA-steel coated with polytetrafluoroethylene or another plastic,
     glass, gold or a ceramic. The filters are made from polycarbonate,
     aluminum oxide or cellulose nitrate. The plate is fitted in a
     thermostatically controlled chamber. The filters are of the same diameter
     as the wells and are surrounded by a ring (7) of larger diameter. They
     have a pore size of 0.2 - 0.45 microns. The bores have the same diameter
     as the wells and the total volume of a single bore plus well is up to 300
     microlitres. Eight filters are connected in a row by straps.
ABEX
                    UPTX: 20020610
     EXAMPLE - No relevant examples are given.
    ANSWER 9 OF 27 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
     2002-075542 [10]
AN
                        WPIX
DNC C2002-022640
     Integrated active flux microfluidic devices for analyzing, e.g. nucleic
TI
     acids, proteins and microorganisms.
     B04 D16
DC
    CHOU, H; QUAKE, S R
IN
     (CALY) CALIFORNIA INST OF TECHNOLOGY
PA
CYC 96
    WO 2001094635 A2 20011213 (200210) * EN 176p
                                                     C12Q001-68
PТ
        RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
            NL OA PT SD SE SL SZ TR TZ UG ZW
         W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK
            DM EC EE ES FI GB GD GE HR HU ID IL IN IS JP KE KG KP KR KZ LC LK
            LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG
            SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
    AU 2001075340 A 20011217 (200225)
                                                     C12Q001-68
                                                                      <--
    US 2002037499 A1 20020328 (200225)
                                                     C12M001-18
                                                                      <--
     EP 1290226
                  A2 20030312 (200320) EN
                                                     C12Q001-68
                                                                      < - -
         R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
            RO SE SI TR
     JP 2003536058 W 20031202 (200382)
                                             200p
                                                     G01N033-53
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ADT WO 2001094635 A2 WO 2001-US18400 20010605; AU 2001075340 A AU 2001-75340 20010605; US 2002037499 A1 Provisional US 2000-209243P 20000605, Provisional US 2000-211309P 20000613, Provisional US 2000-249360P 20001116, CIP of US 2000-724548 20001128, US 2001-875438 20010605; EP 1290226 A2 EP 2001-942042 20010605, WO 2001-US18400 20010605; JP 2003536058 W WO 2001-US18400 20010605, JP 2002-502175 20010605 AU 2001075340 A Based on WO 2001094635; EP 1290226 A2 Based on WO 2001094635; JP 2003536058 W Based on WO 2001094635 20001128; US 2000-209243P 20000605; US 2000-211309P PRAI US 2000-724548 20000613; US 2000-249360P 20001116; US 2001-875438 20010605 ICM C12M001-18; C12Q001-68; G01N033-53 IC B01J019-00; B01L003-00; B81B001-00; C12M001-00; C12Q001-70; G01N021-05; G01N021-64; G01N033-536; G01N033-543; G01N033-566; G01N033-58; G01N037-00 ICA C12N015-09 WO 200194635 A UPAB: 20020213 AB NOVELTY - A microfluidic device (MD) (I) comprising a loop channel (LC) communicating with at least 1 service channel (SC), a microvalve separating the LC from the SC and a pump associated with the LC, is new. DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following: (1) a method (II) for mixing 2 or more different fluids in a MD, comprising: (a) introducing the different fluids to the MD (I) so that each of the fluids is loaded into the loop channel; and (b) activating the pump associated with the loop channel to mix the different fluids; and (2) a method (III) for binding a sample to a target, comprising: (a) introducing a fluid containing the sample to the MD (I) of the fluid is loaded into the loop channel; and (b) activating the pump so that the fluid moves through the loop and the sample binds to the target molecules disposed in the loop as the fluid circulates through it. USE - The MD may be used for the rapid detection of DNA, proteins or other molecules associated with disease. ADVANTAGE - The devices and methods may be used for the simultaneous detection of several diseases by detecting molecules such as polynucleotides or proteins by measuring the signal of a detectable reporter associated with the molecules. Detection of the molecules may be correlated to a signal from an optically-detectable reporter associated with the bound molecules. DESCRIPTION OF DRAWING(S) - A microfluidic device for analyzing e.g. polynucleotides and proteins. Silicon microchip 22 Inlet 24 Outlets 26 and 28 Main channel 32 Detection region 36 Discrimination region 38 Branch channels 40 and 42 Manifolds 46 Reservoir 48 Leads 52 and 54 Dwg.1/24 FS CPI FΑ AB; GI; DCN CPI: B04-C01; B04-E01; B04-G01; B04-N04; B11-C07A; B11-C08E; B11-C09; MC B12-K04A; B12-K04E; B12-K04F; D05-H02; D05-H04; D05-H05; D05-H06; D05-H07; D05-H08; D05-H09; D05-H10; D05-H11; D05-H12; D05-H12D1; D05-J

TECHNOLOGY FOCUS - INSTRUMENTATION AND TESTING - Preferred Device: The SC comprises at least 1 inlet and at least 1 outlet (which are separated from

UPTX: 20020213

TECH

the LC by a microvalve) and the LC receives fluid from the inlet channel. The device may further comprise a mixing channel in communication with a loop inlet channel. The pump is a peristaltic pump and preferably comprises at least 3 cooperating microvalves acting in the LC. The device preferably comprises a set of target molecules (TMs) (e.g. polynucleotide probes, protein probes or antibodies) disposed within the LC. The device further comprises a detection region (DR) coincident with at least a portion of the LC, and at least 1 detector associated with the DR. The LC is circular and resides in a layer of transparent isoelectric material and the valves are formed from an elastomeric membrane. The elastomeric layer is transparent and adjacent to a transparent substrate layer. The LC and SC reside in a treatment layer (TL) and the device further comprises a control layer (CL) adjacent to the TL and carrying control lines. The TL and CL are also elastomeric and are bonded to one another. Either the TL and/or the control layer is/are also transparent. The control lines comprise at least 1 channel which is carried by the CL and which intersects with at least 1 channel carried by the TL. The intersection of the channel forms a microvalve comprising a deformable membrane between a treatment channel and a control channel. At least 3 control channels intersect the LC to form the peristaltic pump. The control channels are supplied with pressurized fluid (e.g. an aqueous liquid) and/or pressurized gas (e.g. air). The mixing channel is on the TL and also has at least 1 microvalve produced by an intersecting control channel on the CL. The target molecules are patterned on a surface of the LC. The patterned surface is a transparent substrate that seals at least part of the length of the loop channel. The pattern of target molecules coincides with a region examined by an optical detector. The target molecules may be labeled with a fluorescent reporter. The elastomeric material is molded silicon and the channels are formed by soft lithography. The LC preferably comprises at least 1 pair of interconnected parallel and antiparallel channels. The CL preferably comprises at least 3 parallel channels which intersect the channel(s) carried by the control layer.

Preferably, (I) is a microtiter plate with 96-1536 microtiter wells each of which comprises a target molecule patterned upon it and the microtiter plate is connected to the treatment layer so that at least a portion of the length of each loop channel is sealed by a microtiter well. (I) Preferably has 96-1536 target loops.

Preferred Methods: In (II), the MD has at least 1 inlet channel and at least 1 outlet channel and the fluids are loaded into the LC through the inlet channel. Preferably the different liquids are loaded via different inlet channels into the LC. Each inlet and outlet is separated from the LC by a microvalve which may be open or closed when the pump is activated. The fluids may comprise a solution or suspension of molecules (e.g. nucleic acids, polypeptides and antibodies or cells, virions, microscopic beads).

In (III), the target molecules are polynucleotide probes, protein probes antibody probes, biotin and avidin. The sample comprises nucleic acid molecules, protein molecules, cells, virions. The sample may comprise particles or molecules having a biotin specific label such as avidin or NeutrAvidin (RTM).

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L51 ANSWER 10 OF 27 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
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AN 2002-017744 [02] WPIX

CR 2003-829571 [77]

DNC C2002-005189

TI Detecting microbial material in fluid samples, especially campylobacter, salmonella, Shigella or VTECs.

DC B04 D16

IN JONES, O P

PA (GWER-N) GWERNAFALAU CYF

CYC 96

PI WO 2001083810 A2 20011108 (200202)* EN 34p C12Q001-00

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RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
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W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD

SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW AU 2001052437 A 20011112 (200222) C12Q001-00

EP 1278887 A2 20030129 (200310) EN

C12Q001-04 <--

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

ADT WO 2001083810 A2 WO 2001-GB2045 20010508; AU 2001052437 A AU 2001-52437 20010508; EP 1278887 A2 EP 2001-925758 20010508, WO 2001-GB2045 20010508 FDT AU 2001052437 A Based on WO 2001083810; EP 1278887 A2 Based on WO 2001083810

PRAI GB 2000-10910 20000505

IC ICM C12Q001-00; C12Q001-04

ICS C12M001-00; C12M001-10

AB WO 200183810 A UPAB: 20031128

NOVELTY - A method (I) and apparatus ((II) and (III)) for detecting microbial material in fluid samples, are new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are included for the following:

- (1) a method (I) of monitoring a microbial material in a fluid sample, comprising:
 - (a) providing a fluid sample for microbiological analysis;
- (b) optionally selectively permitting multiplication of microbial material present in the fluid sample;
- (c) permitting the microbial sample to enter a reaction chamber containing at least one capture system arranged to selectively capture the multiplied microbial material thereon;
- (d) optionally washing the capture system having the microbial material captured on it; and
- (e) monitoring the amount of the captured microbial material present on the capture system;
- (2) a method (II) of monitoring two or more microbial materials present in a fluid sample, comprising:
 - (a) providing a fluid sample for microbiological analysis;
- (b) optionally selectively permitting multiplication of microbial material present in the fluid sample;
- (c) permitting the microbial sample to enter two or more reaction chambers, each reaction chamber containing at least one capture means arranged to selectively capture the microbial material on it;
- (d) optionally washing the capture system having the multiplied microbial material captured on it; and
- (e) monitoring the amount of the captured microbial material present on the capture means;
- (3) apparatus (III) for use in monitoring a microbial material present in a fluid sample, comprising at least one reaction chamber arranged to receive capture system for selectively capturing microbial material contained in a fluid sample and a system for monitoring microbial material captured on the capture means;
- (4) an analytical kit (IV) comprising a number of (III) arranged to be located on a carousel at a defined position, so that the carousel can be moved and each apparatus is presented to a succession of injection, vacuum sources, pressurised reagent dispersers and/or wash stations.

USE - The methods and apparatus are used for monitoring microbial content of fluid samples, especially foods for the presence of Enterobactereacea (campylobacter, salmonella, Shigella or VTECs).

Dwg.0/11

FS CPI

FA AB; DCN

MC CPI: B04-C03; B04-E01; B04-F01; B04-G01; B05-A03A; B11-C08E3; B11-C08E5;

TECH

B11-C09; B12-K04; D05-H04 UPTX: 20020109 TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred Methods: In (I) and (II) the microbial material includes verotoxin producing Escherichia coli, salmonella, campylobacter, mycobacterium, paratuberculosis, Shigella, Yersinia, Brucella, Vibrio, Aeromonas, Listeria, Clostridium difficile (toxin), verotoxins, giardia and criptospiridium. (I) And (II) further comprise repeating step (d) one or more times prior to step (e). 1 Or more antibiotic agents are added to the fluid sample. The antibiotic is added prior to step (e) (such as during step (b) or step (c)). An enrichment broth is also added to the fluid sample (preferably during step (b)). The enrichment both includes nutrients and/or an antibiotic agent. The methods according are performed at a predetermined temperature. The sample and the capture system are agitated, preferably by an alternating source of vacuum and pressure pulse. The capture system includes an antibody-coated substrate. The substrate comprises magnetic beads, plastics beads, microdots, sponges, gauze and membranes. The substrate is in uniform or random array. Monitoring of the captured microbial material is by ELISA or ATP analysis. The capture means includes nucleic acid probes to capture upon it, specific nucleic acid strands for the microbial material being tested. The microbial material is multiplied utilizing PCR. The nucleic acid strands are detected using nucleic acid hybridization technique(s). The multiplication of the microbial material occurs in an enrichment zone and/or the reaction chamber. The sample is drawn from the sample receptacle to the enrichment zone and/or the reaction chamber as a controlled volume. The controlled volume is affected by vacuum suction. The sample is diluted (typically prior to selective multiplication) with buffered peptone water, hepes buffer (which may, if desired, include a wetting agent), an isotonic solution, or any solution capable of diluting the sample without destroying the target bacteria. Preferred Apparatus: The capture system includes an antibody-coated substrate. The substrate includes magnetic beads, plastics beads, microdots (which may be arranged on a solid substrate), sponges, gauze and/or membranes. The magnetic beads are of ferromagnetic material, such

as iron-filled polymer beads and the substrate is arranged in uniform or random array.

The capture system includes the inner surface of the reaction chamber and the system for monitoring the captured microbial material includes a spectrometer for measurement of luminescence, fluorescence or absorbency of colour, a radioactivity measuring device or a microscope for examination of the magnetic beads. The capture system includes nucleic acid strand capture system. The substrate is magnetic or plastic beads, microdots, sponges, gauze, mesh and membranes.

The nucleic acid strand capture system includes a DNA hybridisation probe. The detection system includes a system suitable for use in nucleic acid hybridization techniques. The apparatus further comprises an agitating system for agitating the contents of the reaction chamber. The agitation system includes the capture system, a solenoid-activated bar, or the interior configuration of the reaction chamber which preferably tapers from a first diameter portion to a second diameter portion in which the diameter of the second diameter portion is greater than the first diameter portion. The apparatus includes a sample receptacle which is preferably selectively connectable to, and removable from, the reaction chamber. The apparatus comprises a conduit or the like which is arranged to permit part of the sample to be transferred from the sample receptacle to the enrichment zone. The reaction chamber is typically in the form of an elongated conduit having a first open end in communication with the enrichment zone, and a second open end. The first open end is arranged so that, in use, it is immersed in the fluid sample, and/or the second open end, when in use, is above the surface of the liquid fluid sample. The reaction chamber includes an elongated conduit which is preferably U-shaped (the trough of the U being rounded, pointed or flat). The

elongated conduit may have an undulating appearance. The apparatus includes a dilution zone provided with at least one entry port permitting entry of diluent into the apparatus, and control system arranged to draw a volume (which is typically pre-determined) of microbial material (typically from the enrichment -zone and/or the sample receptacle) into the reaction chamber. The reaction chamber includes a respective first end arranged to receive the sample and a second end arranged to receive the magnetic beads and, if relevant a washing substance. The apparatus has a vacuum source which, when in use, draws the sample into the reaction chamber, and subsequently, the sample and/or the magnetic beads out of the or each reaction chamber, if required. The apparatus includes a pressure source which, when in use assists in the introduction of the coated substrate and the wash material into the reaction chamber. The enrichment zone has a greater internal volume than the (or each) reaction chamber. The apparatus further includes heating system which is typically controlled. The sample container is arranged in an overflow chamber so that if the sample overflows the overflow is collected in the overflow chamber. (III) Is a self contained and/or sealed unit. Preferred Kits: The further includes a drive system arranged to rotate the carousel. Each of the apparatus (III), when in use, is mounted about the periphery of the carousel. The kit further comprise a number of injection

ABEX

UPTX: 20020109

capable of performing at least 1 step from (I).

SPECIFIC MICROORGANISMS - Specific Microorganisms: The microorganisms are Enterobacteraçea (campylobacter, salmonella, Shigella or VTECs).

and/or analysis stations adjacent to th4 carousel and each station is

EXAMPLE - No examples given.

L51 ANSWER 11 OF 27 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

2001-638471 [73] WPIX AN

2001-483281 [52]; 2004-060190 [06] CR

DNN N2001-477218 DNC C2001-188818

New assay device, useful for detecting analytes (e.g. hormones, antibodies or other physiological substances) in a variety of biological samples, as well as for simultaneously analyzing a number of analytes using a single

DC B04 D16 S03

CHEN, H Y; CHOW, T P; GUAN, M; MUN, P K; PEREIRA, A R IN

(CHEN-I) CHEN H Y; (CHOW-I) CHOW T P; (GUAN-I) GUAN M; (MUNP-I) MUN P K; PA (PERE-I) PEREIRA A R; (GENE-N) GENELABS DIAGNOSTICS PTE LTD

CYC

US 2001023076 A1 20010920 (200173)* G01N033-558 23p PI<--C12M001-34

B2 20030909 (200361) US 6617116 <--

US 2001023076 A1 CIP of US 2000-493408 20000128, US 2001-771479 20010125; ADT US 6617116 B2 CIP of US 2000-493408 20000128, US 2001-771479 20010125

FDT US 6617116 B2 CIP of US 6316205

20010125; US 2000-493408 20000128 PRAI US 2001-771479

ICM C12M001-34; G01N033-558

C12Q001-70; G01N021-00; G01N033-53; G01N033-543

US2001023076 A UPAB: 20040123 AB

> NOVELTY - An assay device or kit, is new. The device or kit comprises a chromatographic element having a sample receiving end, a reagent releasing end and a reaction zone, an absorbent pad, and a separator positioned between the chromatographic element and the absorbent pad.

> DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for methods of detecting an analyte in a sample comprising employing the assay device or kit.

USE - The assay device and method are useful for detecting one or more analytes (e.g. hormones, antibodies or other physiological substances) in a variety of biological samples. In addition, the device can be used to simultaneously analyze a number of analytes using a single sample.

ADVANTAGE - The assay device achieves greater sensitivity than conventional rapid test assays, leading to stronger and/or more stable visual signals than those produced by conventional devices, easier interpretation of results, and reduced occurrence of indeterminate results. The device can be used for detecting analytes in biological samples without need for conventional sample filtration techniques, and thus is suitable for use by untrained personnel without specialized equipment.

DESCRIPTION OF DRAWING(S) - The drawing represents a simple illustration of an assay device.

Assay device 2

Chromatographic element 4
Absorbent pad 6

Separator 8

Sample receiving end 10 Reagent releasing end 12 Reaction zone 14.

Dwg.1A/6 CPI EPI

FS CPI EPI FA AB; GI; DCN

MC CPI: B04-G01; B04-J01; B11-C08; B11-C08D2; B12-K04A;

D05-H09; D05-H11

EPI: S03-E14H4

TECH

UPTX: 20011211

TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred Device: The reagent releasing end comprises a releasable binding partner. The releasable binding partner comprises one or more antibodies directed against one or more conserved regions of a human antibody. The releasable binding partner comprises a detectable label. The sample receiving end comprises a first releasable binding partner, and the reagent releasing end comprises a second releasable binding partner. The reaction zone comprises an immobilized binding partner for a specific analyte. In particular, the immobilized binding partner comprises one or more antigens selected from a recombinant human immunodeficiency virus (HIV) 1 antigen, a recombinant HIV 2 antigen, a Helicobacter pylori-derived antigen and a

Mycobacterium tuberculosis-derived antigen. The separator comprises a fluid-impermeable barrier, where the separator protrudes beyond the chromatographic element and the absorbent pad. The separator may also comprise a semi-permeable membrane or a material that dissolves over time upon exposure to an aqueous solution. The reaction zone comprises an immobilized first binding partner, and the reagent releasing end comprises a labeled releasable second binding partner. The sample receiving end may comprise a releasable first binding partner, the reaction zone comprises an immobilized second binding partner, and the reagent releasing zone comprises a labeled releasable third binding partner. The assay device or kit further comprises a casing surrounding at least a portion of the chromatographic element, absorbent pad and separator. Preferably, a portion of the separator protrudes from the casing. The assay device or kit further comprises an aqueous solution. The assay device or kit further comprises an aqueous solution. The assay device or kit further comprises:

- (a) a container for holding the chromatographic element, the separator, the absorbent pad, or combinations of these;
- (b) packaging materials for packaging the chromatographic element, the separator, the absorbent pad or a combination of these; and

(c) an instruction set.

Preferred Method: The method comprises:

- (a) adding the sample to the sample receiving end of the chromatographic element of the assay device or kit;
- (b) allowing the sample to flow from the sample receiving end and through at least a portion of the reaction zone of the chromatographic element;
- (c) reacting the analyte with a first binding partner immobilized within the reaction zone to form a complex;

- (d) adding an aqueous solution to the reagent releasing end of the chromatographic element and solubilizing a releasable second binding partner incorporated in it, where the releasable second binding partner comprises a label;
- (e) removing the separator from the assay device to bring the absorbent pad into contact with the chromatographic element;
- (f) allowing the releasable second binding partner to flow from the reagent releasing end through at least the portion of the reaction zone of the chromatographic element;
- (g) forming a second complex between the releasable second binding partner and a substrate selected from the group consisting of the analyte, the first binding partner, and the first complex; and
- (h) detecting the second complex.

The method may also comprise:

- (a) adding a sample to the sample receiving end of the chromatographic element of the assay device or kit;
- (b) allowing the analyte to react with a releasable first binding partner incorporated in the sample receiving end, to form a first complex;
- (c) allowing the first complex to flow from the sample receiving end and through at least a portion of the reaction zone of the chromatographic element:
- (d) reacting the first complex with a second binding partner immobilized within the reaction zone to form a second complex;
- (e) adding to the reagent releasing end of the chromatographic element an aqueous solution and solubilizing a releasable third binding partner incorporated in it;
- (f) removing the separator from the assay device to bring the absorbent pad into the chromatographic element;
- (g) allowing the releasable third binding partner to flow through at least the portion of the reaction zone;
- (h) forming a third complex between the releasable third binding partner and a substrate selected from the analyte, the releasable first binding partner, the first complex and the second complex; and
- (i) detecting the third complex.

The method may also comprise:

- (a) adding the sample to the sample receiving end of the chromatographic element of the assay device or kit;
- (b) allowing the sample to flow from the sample receiving end and through at least a portion of the reaction zone of the chromatographic element;
- (c) reacting the analyte with a first binding partner immobilized within the reaction zone to form a complex;
- (d) adding an aqueous solution to the reagent releasing end of the chromatographic element and solubilizing a releasable second binding partner incorporated in it, where the releasable second binding partner comprises a label;
- (e) adding an aqueous solution to the reagent releasing end of the chromatographic element and solubilizing a releasable second binding partner and a labeled releasable third binding partner incorporated in it;
- (f) binding the releasable second binding partner to the releasable third binding partner to form a second complex;
- (g) allowing the second complex to flow from the reagent releasing end and through at least the portion of the reaction zone of the chromatographic element;
- (h) forming a third complex between the first complex and the second complex; and
- (i) detecting the third complex.

Adding the aqueous solution and solubilizing a releasable second or third binding partner is performed prior to removing the separator from the assay device. Removing the separator from the assay device is performed prior to the adding the aqueous solution and solubilizing a releasable second or third binding partner. Removing the separator from the assay device is performed concomitant with the adding the aqueous solution and solubilizing a releasable second or third binding partner. The separator

is removed by pulling the separator from between the chromatographic element and the absorbent pad. The separator is removed by permeabilizing the separator or by dissolving the separator. The analyte comprises an immunoglobulin (Ig)M, IgG, an antigen, an antibody, or both an antigen and an antibody.

ABEX

UPTX: 20011211

EXAMPLE - Recombinant human immunodeficiency virus (HIV) 1 antigens p24 and qp41, and recombinant HIV 2 antigen gp36, were immobilized at a concentration of 0.08-0.3 mg/ml onto a nitrocellulose membrane. Protein A was immobilized in the same manner for use as an assay control line. The membrane was dried before addition of a blocking buffer. A reagent-bearing pad was prepared using a porous matrix. The pad was sprayed with goat anti-human immunoglobulin (Ig)G antibodies that were labeled with colloidal gold particles and dried. The assembly was cut into strips of 4 mm by 56 mm in size to form a chromatographic element having an untreated porous matrix at the sample receiving end, the reagent-bearing pad attached at the reagent releasing end, and the antigens immobilized in the reaction zone region. An assay device was assembled by placing an absorbent pad in the bottom half of a casing, then laying a separator above the absorbent pad, so that one edge of the separator extended from the casing. The chromatographic element was situated on top of the separator and the top half of the casing was attached. A serum sample was added to the sample receiving end of the chromatographic element via a first opening or window on the casing. The sample was allowed to migrate laterally and cover the reaction zone region of the membrane. Any human antibodies to the three HIV antigens present in the sample were bound to these antigens as the sample fluid crossed the region at which the antigens were bound to the nitrocellulose membrane. When the sample reached the indicator in the reaction zone after 1 minute, 3 drops of aqueous solution were added to a second opening in the casing above the reagent releasing end of the chromatographic element. Immediately after addition of the aqueous solution, the separator was removed from the assay device by pulling on the protruding end, allowing the chromatographic element and the absorbent pad to come into contact. The labeled goat anti-human IgG antibodies were then allowed to migrate across the reaction zone of the chromatographic element and bind to any human IgG antibodies immobilized in this region. The results were readable in 5 minutes through the opening in the casing. The results of this experiment clearly demonstrated the improved sensitivity of the present invention.

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L51 ANSWER 12 OF 27 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
                        WPTX
     2001-316430 [33]
AN
DNC C2001-097528
     Freeze-drying viable microorganisms in a multiwell container, useful for
     storing bacterial libraries at room temperature.
DC
     B04 D13 D16
IN
     REID, M
PA
     (GENE-N) GENETIX LTD
CYC
     WO 2001032835 A1 20010510 (200133)* EN
PΤ
                                              20p
                                                     C12N001-04
        RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ
            NL OA PT SD SE SL SZ TR TZ UG ZW
         W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM
            DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC
            LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE
            SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW
                     20010514 (200149)
                                                     C12N001-04
     AU 2001011573 A
                   B1 20011127 (200175)
                                                     C12Q001-02
     US 6322994
                   A1 20020731 (200257)
                                         EN
                                                     C12N001-04
         R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT
            RO SE SI
     EP 1226229
                   B1 20040128 (200410) EN
                                                     C12N001-04
         R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
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ADT WO 2001032835 A1 WO 2000-GB4205 20001102; AU 2001011573 A AU 2001-11573
    20001102; US 6322994 B1 US 1999-433356 19991104; EP 1226229 A1 EP
    2000-973017 20001102, WO 2000-GB4205 20001102; EP 1226229 B1 EP
    2000-973017 20001102, WO 2000-GB4205 20001102
    AU 2001011573 A Based on WO 2001032835; EP 1226229 A1 Based on WO
     2001032835; EP 1226229 B1 Based on WO 2001032835
PRAI US 1999-433356
                      19991104
     ICM C12N001-04; C12Q001-02
IC
     ICS A01N001-00; C12M001-00; C12M001-18
    WO 200132835 A UPAB: 20010615
AΒ
    NOVELTY - Freeze-drying many samples of viable microorganisms (A) by
    dispensing the liquid samples into separate wells of a container, placing
     the container in a freeze-drying apparatus and freeze-drying under
     conditions that maintain viability.
          DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a
     multiple-well container having a viable freeze-dried sample of (A) in each
          USE - The method is particularly used to store libraries, optionally
     (partially) pre-selected, of bacteria (preferred), yeast, fungi, animal or
     plant cells, produced by cloning techniques, for subsequent screening.
          ADVANTAGE - The container can be stored and used at room temperature,
     so provides storage of many different (A) in an easily accessible format
     that does not require expensive freezer space. Samples are stored in
     individual wells without cross-contamination and room temperature storage
     is more compatible with screening in automated instruments.
     Dwg.0/2
FS
     CPI
FA
     AB; DCN
     CPI: B04-F10; B04-F10A3; B11-C06; B11-C08; B11-C08E1;
MC
          B12-K04E; D03-H02A; D05-H02; D05-H09
                    UPTX: 20010615
TECH
     TECHNOLOGY FOCUS - BIOLOGY - Preferred Process: The samples include an
     excipient, specifically lactose, sucrose or trehalose. Particularly (A)
     have been grown in a culture medium that contains the excipient and
     freeze-dried in this medium.
     Preferred Container: The container is a microtiter plate and is fitted
     with a sterile seal for each well, particularly one that allows removal of
     a portion of the sample, particularly a rubber seal.
ABEX
                    UPTX: 20010615
     EXAMPLE - Escherichia coli JM109, transformed with pUC18/19, were grown on
     LB (Luria Bertani) broth containing 50 micrograms/ml ampicillin, then
     pelleted by centrifugation, resuspended in LB broth containing 10%
     trehalose and 0.25% glycerol and distributed among the wells of a 384-well
     plate. The plates were frozen at -80 degrees Celsius, freeze-dried, then
     stored at 4 degrees Celsius in sealed bags for 17 days. The cultures were
     then rehydrated and serially diluted in ampicillin-containing LB broth to
     determine viable cells. Viability was 78.5%, compared with 0% when the
     trehalose/glycerol excipient was replaced by 10% poly(vinyl pyrrolidone)
     and 0.25% glycerol.
    ANSWER 13 OF 27 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
L51
                        WPIX
ΑN
     1999-469832 [40]
     2000-304365 [26]
CR
                       'DNC C1999-138066
DNN
     N1999-350828
     Device for simultaneously testing many materials for antimicrobial
     activity or antigen adhesion, particularly materials used for medical
     equipment.
DC
     B04 D16 J04 S03
IN
     BECHERT, T; STEINRUECKE, P
     (BECH-I) BECHERT T; (STEI-I) STEINRUECKE P
PΑ
CYC
     DE 19751581
                   A1 19990826 (199940)*
                                              15p
                                                     C12M001-34
PI
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C2 20020508 (200233)

DE 19751581

C12M001-34

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gitomer - 09 /977539
ADT DE 19751581 A1 DE 1997-19751581 19971120; DE 19751581 C2 DE 1997-19751581
     19971120
FDT DE 19751581 C2 Div in DE 19758598
PRAI DE 1997-19751581 19971120
     ICM C12M001-34
TC
         C12M001-18; C12Q001-18; G01N021-17; G01N033-535;
     TCS
          G01N033-543
    DE 19751581 A UPAB: 20020524
AB
    NOVELTY - Device (A) comprises part (1) with many samples for testing,
     having equal sizes, attached to it, and second part (2) with many
     depression of equal size. The samples are arranged so that they are
     aligned with the centers of the depressions and the dimensions of samples
     and depressions are matched.
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DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following: (a) method for testing materials for antimicrobial activity by (i) preparing samples of defined geometry and size, (ii) incubating samples with solution of test microbe, (iii) transferring the samples to a minimal medium suitable for the microbe, (iva) transferring samples to a nutrient medium suitable for the microbe, (va) determining the optical density (OD) of the nutrient solution after removal of the sample, (ivb) removing the sample and adding 1-1/100 volume parts complete medium to the minimal medium and (vb) time-resolved measurement of the OD of the medium; and (b) method for quantifying adhesion of antigens (Ag) to test materials by (i) as above, (ii) incubating samples with a solution containing (Ag), (iii) transferring samples sequentially to blocking solution, serum solution, enzyme-containing solution and enzyme substrate solution, then (iv) photometric measurement of the substrate solution after removal of the sample.

ACTIVITY - Antimicrobial.

MECHANISM OF ACTION - None given.

USE - (A) is used to screen materials, especially optionally pretreated biomaterials, for antimicrobial activity and to quantify adhesion (particularly of antigens but also proteins, nucleic acids, algae, chemicals etc.) to these materials. The materials are e.g. those used for prostheses, catheters and other medical equipment, but may also be those used in brewing, toys, kitchen or bathroom products, pharmaceuticals (ointments and lotions), surface coatings, detergents etc.

ADVANTAGE - (A) allows simultaneous examination of many samples under identical conditions and provides quantitative results. It provides reproducible results quickly and inexpensively; is highly sensitive, and suitable for automation and photometric evaluation.

Dwg.0/7

FS CPI EPI

FA AB; DCN

MC

TECH

CPI: B04-B04C; B04-E01; B04-F08; B04-F09; B04-L01; B11-C04A;

B11-C04B; B12-K04; D05-H09; J04-B01

EPI: S03-E04; S03-E14H4

UPTX: 19991004

TECHNOLOGY FOCUS - INSTRUMENTATION AND TESTING - Preferred device: When parts (1) and (2) are assembled, a space (particularly smaller than half the depth of the depression) is left between the base of the depression and the sample, and this space serves as an incubation chamber. Test sample are particularly cylindrical and the maximum cross-section of the sample is not over half the diameter of the depression. Samples are particularly glued on to (1). Especially (2) is a microtiter plate and (1) a matching cover. Preferred process: In method (a), the minimal medium in step (iii) may include 1-1/2000 of complete medium (to increase sensitivity, allowing very low levels of antimicrobial activity to be detected). In both methods (a) and (b), many samples are tested simultaneously, with results evaluated using an EDV (not defined)-controlled microplate reader.

ABEX UPTX: 19991004

EXAMPLE - Samples (cylinders 1.1. cm long and 2 mm in diameter) of

catheter material were glued to a microtiter plate cover (aligned with the plate wells), then incubated for 60 min at 37degreesC in a suspension containing 108 log-phase cells/ml in complete medium. The samples were then removed, placed in microtiter wells filled with minimal medium and after 24 hr at 37degreesC, removed, washed and placed in microtiter wells containing sterile complete medium. After a further 24 hr incubation, the samples were removed and optical density (OD) in the wells measured (end-point measurement at 578 nm). For six commercial polyurethane samples, bacterial proliferation was detected with mean OD 0.537, standard deviation 0.122. For six similar samples that included silver, the mean OD was -0.001 with standard deviation 0.002.

AN

TΙ

DC

TN

PA

CYC

PΤ

AB

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L51 ANSWER 14 OF 27 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
     1999-264036 [22]
                        WPTX
DNN N1999-196673
                        DNC C1999-077938
     New multicompartment assay device comprises selectively sustaining growth
     of target microbial organism and antimicrobial susceptibility especially
     detecting urinary tract infections.
    B04 C06 D16 J04 S03
     CARPENTER, C R; CHEN, C; GU, H; NAQUI, A
     (IDEX-N) IDEXX LAB INC; (CARP-I) CARPENTER C R; (CHEN-I) CHEN C; (GUHH-I)
    GU H; (NAQU-I) NAQUI A
    84
                  A1 19990415 (199922)* EN
                                              40p
                                                     C12Q001-08
     WO 9918232
        RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL
            OA PT SD SE SZ UG ZW
         W: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GD
            GE GH GM HR HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD
            MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA
            UG US UZ VN YU ZW
     AU 9895879
                  A 19990427 (199936)
                  A1 20000712 (200036) EN
                                                     C12Q001-08
         R: AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE
                                                     C12Q001-08
     JP 2001519167 W 20011023 (200202)
                                              37p
                                                                     <--
     US 2002076742 A1 20020620 (200244)
                                                     C12Q001-18
                                                     C12Q001-08
                                                                     <--
                  B 20020905 (200264)
ADT WO 9918232 A1 WO 1998-US20298 19980929; AU 9895879 A AU 1998-95879
     19980929; EP 1017844 A1 EP 1998-949584 19980929, WO 1998-US20298 19980929;
     JP 2001519167 W WO 1998-US20298 19980929, JP 2000-515025 19980929; US
     2002076742 A1 US 1997-942369 19971002; AU 752133 B AU 1998-95879 19980929
   AU 9895879 A Based on WO 9918232; EP 1017844 A1 Based on WO 9918232; JP
     2001519167 W Based on WO 9918232; AU 752133 B Previous Publ. AU 9895879,
     Based on WO 9918232
                     19971002
PRAI US 1997-942369
     ICM C12Q001-08; C12Q001-18
         A01N037-18; C12M001-18; C12Q001-00;
          C12Q001-04; C12Q001-20; G01N021-63; G01N033-15
          9918232 A UPAB: 20021105
     NOVELTY - The multicompartment assay comprises:
          (a) at least one compartment comprising a viable organism control
     medium capable of sustaining growth of total microbial organisms;
          (b) at least one compartment comprising a medium capable of
     selectively sustaining growth of target microbial organisms; and
          (c) at least one compartment comprising an antimicrobial
     susceptibility interpretation medium.
          DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for a
     method for detecting the presence of target microbial microorganisms in a
     biological sample and of simultaneously determining the susceptibility of
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such microorganisms to antimicrobial agents comprising: (a) providing a multicompartment assay (as above); and

(b) placing a portion of the biological sample respectively in at least one of the compartments comprising a medium capable of sustaining growth of target microbial organisms and at least one compartment

comprising an antimicrobial susceptibility interpretation edium comprising an antimicrobial agent. Growth of organisms in at least one compartment comprising a medium capable of sustaining growth of total microbial organisms indicates the presence of bacteria in a sample and growth of organisms in at least one compartment comprising a medium capable of sustaining growth of target microbial organisms indicating the presence of target microbial organisms in at least one compartment comprising an antimicrobial susceptibility interpretation medium indicating that the organisms lack susceptibility to that antimicrobial agent.

USE - The device is useful for detecting target microorganisms in a biological sample and determining the susceptibility of such microorganisms to antimicrobial agents especially for the detection of urinary tract infections, skin infections and/or ear infections in humans and/or for veterinary use.

ADVANTAGE - The method is an improvement for determining effective antibacterial therapy in a single step.

Dwg.0/0

FS CPI EPI

FA AB; DCN

MC CPI: B04-B04B1; B04-B04D4; B04-B04D5; B04-B04G; B04-B04L; **B04-F10**; B04-L01; **B11-C08C**; B11-C08E; B11-C09; B12-K04A4;

C04-B04B1; C04-B04D4; C04-B04D5; C04-B04G; C04-B04L; C04-F10

; C04-L01; C11-C08C; C11-C08E; C11-C09; C12-K04A4; D05-H02;

D05-H09; J04-B01

EPI: S03-E04D

TECH UPTX: 19990609

TECHNOLOGY FOCUS - BIOTECHNOLOGY - Preferred Device: The medium capable of sustaining growth of total microbial organisms comprises a total viable bacteria medium where the target microbial organisms are bacteria and the antimicrobial susceptibility interpretation medium comprises an antibiotic or a total viable fungi medium where the target microbial organisms are fungi and the antimicrobial susceptibility interpretation medium comprises an antifungal agent.

The medium capable of sustaining growth of total microbial organisms comprises a means for detecting total microbial organisms. The detection means comprises:

(i) an enzyme substrate comprising a detectable moiety capable of being released from the substrate by action of a microbial enzyme; or (ii) a signal generating substrate comprising a detectable moiety capable of being released from the substrate by action of a microbial enzyme (especially comprising a detectable moiety capable of being released from the substrate by action of a microbial enzyme).

Each of the media comprises a means for producing an identical type of detectable signal. At least one antimicrobial susceptibility interpretation medium comprises amoxicillin, clavulanic acid/amoxicillin or enrofloxacin.

Preferred Method: The biological sample is urine, blood, saliva, cerebrospinal fluid, fluid from a wound, a chemical sample or an environmental sample. The target microbial microorganisms are urpathogens (especially comprising Enterobacteriacae especially E. coli, Klebsiella spp., Enterobacter spp., Proteus mirabilis, Proteius vulgaris, Morganella morganii, Providencia retteri, Acineobacter spp., Staphylococcus aureus, Enterococcus faecalis, or Streptococci.

ABEX UPTX: 19990609

EXAMPLE - The media was formulated using standard techniques comprising UTI media with enrofloxacin (ENR) at 2.0 mg/l. A total of 303 feline and canine urine specimens were collected from the animals suspected of having urinary tract infection and were tested with the ENR medium. A 50 microlitre aliquot of the urine specimen was added to 10 ml sterile saline solution (0.85% NaCl). A 100 microlitre of the diluted urine specimens were added to the ENR medium in the urinary tract infection device and the device was then incubated at 35 degreesC for 24 hours. For comparison a traditional microbiological culture, bacteria

identification technique and antimicrobial susceptibility test were performed. A portion of 1 microlitre urine specimen was streaked onto blood agar plate which was then incubated at 35 degreesC for 24-48 hours. The positive culture was then subcultured and subjected to biochemical identification to obtain the identity of the isolated culture. The susceptibility of the ENR of the gram negative urinary pathogens were performed using standard

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Kirby-Bauer antimicrobial susceptibility assay.
L51 ANSWER 15 OF 27 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
    1999-153812 [13]
                       WPIX
ΝA
     2000-087345 [07]; 2000-087375 [07]; 2000-087488 [07]; 2000-097643 [08];
CR
     2000-097644 [08]; 2000-106021 [09]; 2000-136895 [12]; 2000-514683 [46]
DNC
    C1999-045539
    Detection and enumeration of microorganisms in liquid test samples - using
TI
     incubating techniques on multiple microvolumes of the test sample.
DC
     B04 D16 J04
     BENTSEN, J G; BERG, J G; CALHOUN, C D; HALVERSON, K J; HUNTLEY, D A;
IN
     JOHNSTON, R P; KREJCAREK, G E; QIU, J; WEI, A; WILLIAMS, M G
PA
     (MINN) MINNESOTA MINING & MFG CO; (MINN) 3M INNOVATIVE PROPERTIES CO
CYC 82
PI
    WO 9906589
                  A1 19990211 (199913)* EN
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           MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT UA UG
           UZ VN YU ZW
    AU 9885957
                  A 19990222 (199927)
    EP 1000169
                  A1 20000517 (200028)
         R: BE DE DK ES FR GB IT NL SE
                 A 20000725 (200043)
    BR 9810844
     JP 2001512031 W 20010821 (200155)
                                              51p
                                                     C12Q001-08
    MX 2000000953 A1 20010901 (200239)
                                                     C12Q001-02
                                                                     <--
  プ US 6696286
                B1 20040224 (200415)
                                                     C12M001-34
                                                                     <--
ADT WO 9906589 A1 WO 1998-US15575 19980727; AU 9885957 A AU 1998-85957
    19980727; EP 1000169 A1 EP 1998-937185 19980727, WO 1998-US15575 19980727;
    BR 9810844 A BR 1998-10844 19980727, WO 1998-US15575 19980727; JP
     2001512031 W WO 1998-US15575 19980727, JP 2000-505329 19980727; MX
     2000000953 A1 MX 2000-953 20000127; US 6696286 B1 CIP of US 1997-838552
    19970409, Div ex US 1997-905481 19970801, US 2000-495092 20000201
FDT AU 9885957 A Based on WO 9906589; EP 1000169 A1 Based on WO 9906589; BR
     9810844 A Based on WO 9906589; JP 2001512031 W Based on WO 9906589
                    19970801; US 1997-838552
PRAI US 1997-905481
                                                 19970409; US 2000-495092
     20000201
     ICM C12M001-34; C12Q001-02; C12Q001-08
IC
     ICS B01L003-00; C12M001-18
          9906589 A UPAB: 20040302
AB
    A liquid test sample is distributed in microvolumes into a number of
    microcompartments(18,20) of a culture device(16). The device(16) is then
     incubated for a time period of at least one cell division cycle. The
    presence or absence of micro-organisms in each of the microcompartments is
     then checked.
          USE - To give rapid and effective detection and enumeration of
```

micro-organisms in liquid test samples.

ADVANTAGE - The use of microvolumes gives multiple test samples for rapid detection and enumeration with reduced 95% confidence limits for the test results.

Dwg.2/8

FS CPI

FA AB; GI

MC CPI: B11-A; B11-C06; B12-K04A; D05-H02; D05-H09; J04-C04

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L51 ANSWER 16 OF 27 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
     1997-549338 [50]
                        WPIX
ΔN
DNC C1997-175120
     Screening for microorganisms having identifiable characteristic,
     especially mutant enzyme expression - by growing mixed population in
     individual compartments containing selective medium.
DC
     B04 D16
     SCHELLENBERGER, V
ΙŃ
     (GEMV) GENENCOR INT INC
PΑ
CYC 29
                   A1 19971009 (199750)* EN
PΙ
     WO 9737036
                                              23p
                                                     C12Q001-08
        RW: AT BE CH DE DK EA ES FI FR GB GR IE IT LU MC NL PT SE
         W: AU BR CA CN FI JP KR MX NO NZ
     AU 9720520 A 19971022 (199808)
                                                     C12Q001-08
                   A1 19990127 (199909) EN
                                                     C12Q001-08
     EP 892853
                                                                     < - -
         R: AT BE CH DE DK ES FI FR GB LI NL
     US 6001586 A 19991214 (200005)
                                                     C12Q001-04
                                                                     <--
                  B 20010405 (200125)
                                                     C12Q001-08
     AU 731935
    WO 9737036 A1 WO 1997-US2527 19970217; AU 9720520 A AU 1997-20520
ADT
     19970217; EP 892853 A1 EP 1997-908668 19970217, WO 1997-US2527 19970217;
     US 6001586 A US 1996-625488 19960329; AU 731935 B AU 1997-20520 19970217
     AU 9720520 A Based on WO 9737036; EP 892853 A1 Based on WO 9737036; AU
     731935 B Previous Publ. AU 9720520, Based on WO 9737036
PRAI US 1996-625488
                     19960329
REP EP 181075; GB 2094831; US 3902972; US 3960658
     ICM C12Q001-04; C12Q001-08
TC
         C12M001-18; C12M001-22; C12M001-32;
          C12Q001-02; C12Q001-20; C12Q001-54
          9737036 A UPAB: 19971217
AB
     Screening of microorganisms having a selectable characteristic comprises:
     (a) inoculating a growth medium that (by addition or lack of a particular
     nutrient or metabolite) favours growth of organisms with the specified
     characteristic over growth of those without, with various microorganisms;
     (b) placing inoculated medium in a growth chamber having separate
     compartments, forming a barrier that prevents diffusion of metabolites
     from one compartment to the others, so that microorganisms are randomly
     distributed among the compartments; (c) incubating the chamber so that
     organisms with and without the specified characteristic can be
     distinguished, and (d) selecting organisms with the specified
     characteristic.
          When the cells are randomly distributed, at least 25%, particularly
     practically all, of the compartments contain only one organism. Each
     compartment has volume 0.0001-1 ml (particularly 0.05-1 mu 1). The
     selectable property is particularly expression of mutant enzyme having
     altered substrate specificity, specific activity, temperature/activity or
     pH/activity profile, activity or stability in presence of surfactants,
     solvents or other solutes. The enzymes are e.g. hydrolases,
     oxidoreductases, transferases, lyases or ligases, particularly protease,
     lipase, amylase, beta -galactosidase, cellulase, hemicellulase, etc. The
     microorganisms have been mutated before inoculation of the medium.
          USE - The method is particularly used to detect, amplify and isolate
     random mutants (of bacteria, filamentous fungi or yeast) that produce an
     extracellular enzyme with altered activity, performance or stability.
          ADVANTAGE - The method is simple, rapid and accurate, allowing
     isolation of required mutants from a population of up to 1 million
     organisms without nutrient cross-over.
     Dwg.2/3
FS
     CPI
FA
     AB; GI
     CPI: B04-F09; B04-F10; B04-L01; B11-C08E1; B12-K04A4;
MC
          D05-A02; D05-H03; D05-H04; D05-H05
```

L51 ANSWER 17 OF 27 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

```
WPIX
AN
     1997-470557 [43]
                        DNC C1997-149501
DNN
    N1997-392595
     Test system for potential plant protection chemicals - has bar code
     identification of test samples and substances and recessed carrier plate
     for the samples with nutrients and sprays for the test chemicals at each
DC
     C07 D16 S03
     DANIGEL, H; KESSMANN, H; KLOKOW, G; MENTZEN, J; OBERGFELL, P; KESSAMANN, H
IN
     (NOVS) NOVARTIS AG; (SYGN) SYNGENTA PARTICIPATIONS AG; (NOVS)
     NOVARTIS-ERFINDUNGEN VERWALTS GMBH; (DANI-I) DANIGEL H; (KESS-I) KESSMANN
     H; (KLOK-I) KLOKOW G; (MENT-I) MENTZEN J; (OBER-I) OBERGFELL P; (SYGN)
     SYNGENTA CROP PROTECTION INC
CYC
PΙ
     WO 9733179
                   A1 19970912 (199743)* DE
                                              37p
                                                     G01N035-00
        RW: AT BE CH DE DK EA ES FI FR GB GH GR IE IT KE LS LU MC MW NL OA PT
            SD SE SZ UG
         W: AL AU BA BB BG BR CA CN CU CZ EE GE HU IL IS JP KP KR LC LK LR LT
            LV MG MK MN MX NO NZ PL RO SG SI SK TR TT UA US UZ VN YU
     AU 9720230
                   A 19970922 (199804)
                                                     G01N035-00
                   A1 19981223 (199904) DE
                                                     G01N035-00
     EP 885395
         R: AT BE CH DE DK ES FI FR GB GR IE IT LI LU NL PT SE
                  A 19990727 (199941)
                                                     G01N035-00
     BR 9707942
                   B 20000113 (200014)
                                                     G01N035-00
     AU 714880
                                              40p
     JP 2000506268 W 20000523 (200033)
                                                     G01N033-15
                A1 19990101 (200051)
                                                     G01N035-00
     MX 9807219
                                                     G01N035-00
     KR 99087414
                  A 19991227 (200059)
                   B1 20010711 (200140) DE
                                                     G01N035-00
     EP 885395
         R: AT BE CH DE DK ES FI FR GB GR IE IT LI LU NL PT SE
     DE 59704014 G 20010816 (200148)
                                                     G01N035-00
                   B1 20010821 (200150)
                                                     G01N035-00
     US 6277642
                   A 20011223 (200216)
                                                     G01N033-00
     IL 125861
     US 2002110920 A1 20020815 (200256)
                                                     G01N035-00
                  B2 20030902 (200359)
                                                     C12Q001-02
     US 6613542
     WO 9733179 A1 WO 1997-EP985 19970228; AU 9720230 A AU 1997-20230 19970228;
ADT
     EP 885395 A1 EP 1997-908155 19970228, WO 1997-EP985 19970228; BR 9707942 A
     BR 1997-7942 19970228, WO 1997-EP985 19970228; AU 714880 B AU 1997-20230
     19970228; JP 2000506268 W JP 1997-531427 19970228, WO 1997-EP985 19970228;
     MX 9807219 A1 MX 1998-7219 19980904; KR 99087414 A WO 1997-EP985 19970228,
     KR 1998-706831 19980831; EP 885395 B1 EP 1997-908155 19970228, WO
     1997-EP985 19970228; DE 59704014 G DE 1997-504014 19970228, EP 1997-908155
     19970228, WO 1997-EP985 19970228; US 6277642 B1 WO 1997-EP985 19970228, US
     1999-117968 19990216; IL 125861 A IL 1997-125861 19970228; US 2002110920
     Al Div ex US 1999-117968 19990216, US 2002-881072 20020411; US 6613542 B2
     Div ex WO 1997-EP985 19970228, Div ex US 1999-117968 19990216, US
     2001-881072 20010614
     AU 9720230 A Based on WO 9733179; EP 885395 A1 Based on WO 9733179; BR
FDT
     9707942 A Based on WO 9733179; AU 714880 B Previous Publ. AU 9720230,
     Based on WO 9733179; JP 2000506268 W Based on WO 9733179; KR 99087414 A
     Based on WO 9733179; EP 885395 B1 Based on WO 9733179; DE 59704014 G Based
     on EP 885395, Based on WO 9733179; US 6277642 B1 Based on WO 9733179; IL
     125861 A Based on WO 9733179; US 2002110920 A1 Div ex US 6277642; US
     6613542 B2 Div ex US 6277642
PRAI EP 1996-810124
                      19960305
REP
     EP 323205; WO 8604919
         C12Q001-02; G01N033-00; G01N033-15; G01N035-00
         C12M003-00; C12Q001-00; G01N033-48
AΒ
          9733179 A UPAB: 20031105
     A system for testing chemical material, or their mixtures, for
     effectiveness in plant protection applications identifies the sample
     materials by a machine readable code (BC1,BC2) to be stored in memory
     (12). The samples are prepared in a test plate (30) so that the sample or
     a part-sample (BR) is placed in each recess (300) containing a nutrient
```

(301) or a gel partially filling it, for all the recesses. A spray

(150,151) is either directly over the plate recess (300), or immersed in it, to spray the test sample with the selected substance.

The test samples and the test substances are identified by a machine readable code (BC1,BC2) to be stored in memory (12). The sample is passed into a stamper (2) to give sheet discs (BR) of the sample automatically. It is held for positioning in the plate (30) recess (300 at least partially filled with a nutrient (301) or a gel. A store (5) holds a number of carrier plates (30) charged with samples before spraying. Several concentrations of the substances or mixtures are prepared in a store (8), for charging each recess in the carrier plates, and a mixer (13) prepares the selected substances for each plate recess, with an auxiliary mixer (11), for delivery to the sprays (150,151). The spray assembly (150,151) is a tuyere stock (150) with a sealing ring (152) which gives a firm sealing when the jet (151) is inserted into the plate (30) recess (300).

USE - The system is especially suitable for the testing potential pesticides, herbicides, fungicides, acaricides, nematocides or insecticides

ADVANTAGE - The system gives a high throughput of materials to be tested and test samples. At the same time, it gives a reliable identification and classification of the samples and test substances, without any contamination of adjacent samples. The operation can be highly automated for increased efficiency, and can be allowed to work overnight without supervision.

Dwg.1,6/9

FS CPI EPI

FA AB; GI

MC CPI: C11-C06; C11-C08C; C12-K04E; D05-H09

EPI: S03-E15

L51 ANSWER 18 OF 27 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN

AN 1997-206618 [19] WPIX

DNC C1997-066310

TI Multi-well osteocyte culture device for diagnosing osteocyte diseases - has multi-chamber unit with open end sealed to flat base part having sintered calcium phosphate film.

DC B04 D16

IN PUGH, S M; SMITH, T J N

PA (MILL-N) MILLENIUM BIOLOGIX INC

CYC 2

PI JP 09056369 A 19970304 (199719)* 10p C12M001-18 <-US 5861306 A 19990119 (199911) C12M003-00

ADT JP 09056369 A JP 1995-350164 19951222; US 5861306 A Cont of US 1995-518912 19950824, US 1997-847889 19970428

PRAI US 1995-518912 19950824; US 1997-847889 19970428

IC ICM C12M001-18; C12M003-00

ICS C12M001-34; C12Q001-06; C12Q001-20

ICA C12N005-06

AB JP 09056369 A UPAB: 19970512

Device includes flat base part (12) having sintered calcium phosphate film provided on one side and multi-chamber unit having one end opened arranged above film. Multi-chamber unit is sealed to base part having the coated film by sealing means to form individual housing wells. Using same film surface of calcium phosphate, osteoblast and osteoclast can be cultured at same time. for example, in 3 adjacent wells, osteoclast, osteoblast, and proper reference cells can be cultured, respectively. Thus, it is possible to compare functions of osteoblast and osteoclast under the same conditions.

USE - Used to analyse functions of osteocyte for diagnosing osteocyte diseases and for developing chemical to change the activity of osteocyte. Dwg.0/11

FS CPI

FA AB

```
CPI: B04-F01; B11-C08E1; B12-K04; D05-H02; D05-H08; D05-H09
MC
    ANSWER 19 OF 27 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
L51
     1997-081097 [08]
                        WPIX
AN
DNN N1997-067174
                        DNC C1997-025934
     A cell culture multi-well plate - without anchor dependency comprises e.g.
TI
     methacrylate coated wells.
DC
     A89 B04 D16 S03
     (NIPK) NIPPON KAYAKU KK; (UEHA-I) UEHARA Y
PA
CYC
                 A 19961210 (199708)*
                                                     C12Q001-06
PΙ
     JP 08322593
                                              19p
ADT JP 08322593 A JP 1995-161517 19950605
PRAI JP 1995-161517
                      19950605
IC
     ICM C12Q001-06
         C12M001-18; C12M001-34; C12M003-04; C12N005-02;
          G01N033-52
     JP 08322593 A UPAB: 19970220
AB
     A cell culture multi-well plate for cells without anchor dependency
     comprises polymethacrylate, partic. poly(hydroxyalkyl) methacrylate, especially
     poly(2-hydroxymethyl)methacrylate, coated wells, partic. for selective
     multiplication of the cells, and a culture method using the multi-well
     plate, and a method for quantitative determn. of the growth rate of cells
     without anchor dependency, partic. by uptake of tritium thymidine,
     tetrazolium reduction or colorimetric method. Multi-well cell culture plates
     are coated with polymethacrylate (e.g. poly(hydroxy-loweralkyl)
     methacrylate, esp,. poly(2-hydroxymethyl)methacrylate) with polymerisation
     degree of 50-100,000, pref. 100-10,000 to give thickness of 0.002-50,
     pref. 0.01-40 micron. Cells are cultured at 20-45, pref. 35-40 deg.C and
     the growth rate was determined by the claimed procedures.
          ADVANTAGE - Simple culture and quantitative determn. of transformed
     cells without anchor dependency.
          In an example, in a 95% EtOH solution poly(2-hydroxyethyl)methacrylate
     was dissolved to make 5 mg/ml solution and poured in a multi-well plate at a
     rate of 50 micro L/well and dried at 37 deg.C for 2 days to give the
     multi-well cell culture plate.
     Dwg.4/22
FS
     CPI EPI
     AB; GI; DCN
FA
     CPI: A04-F06E; A12-W11L; B04-C03B; B04-F01; B11-C07A; B12-K04A; D05-H02;
MC
          D05-H09
     EPI: S03-E14H
    ANSWER 20 OF 27 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
L51
ΑN
     1997-052357 [05]
                        WPIX
DNC
    C1997-017508
ΤI
     New test device for microorganisms - comprising control matrix for
     detecting microorganisms and test matrix for detecting susceptibility to
     inhibitory agents.
DC
     A96 B04 B05 C07 D13 D15 D16
TN
     BERGERSON, W O
     (FARB) BAYER AG
PA
CYC
    42
                   A1 19961219 (199705)* EN
PΤ
     WO 9640981
                                              22p
                                                     C12Q001-18
        RW: AT BE CH DE DK ES FI FR GB GR IE IT LU MC NL OA PT SE
         W: AU BB BG BR BY CA CN CZ HU IL JP KR KZ LK MX NO NZ PL RO RU SK TR
     AU 9662212
                     19961230 (199716)
                                                     C12Q001-18
                   Α
     ZA 9604728
                      19970326 (199718)
                   Α
                                              21p
                                                     C12Q000-00
     WO 9640981 A1 WO 1996-EP2400 19960603; AU 9662212 A AU 1996-62212
     19960603; ZA 9604728 A ZA 1996-4728 19960606
    AU 9662212 A Based on WO 9640981
PRAI US 1995-486667
                      19950607
REP AU 1157876; EP 322591; EP 550903; US 3881993
```

```
ICM C12Q000-00; C12Q001-18
IC
         C12M001-18; C12M001-26
     ICS
          9640981 A UPAB: 19970129
ΑB
     Test device for analysing a sample for microorganisms and for detecting
     the efficacy of inhibitory agent(s) against such microorganisms, being
     adapted to be inoculated with the sample and incubated in a sealable
     container, comprises:
          (a) at least 2 matrices of equivalent absorptive capacity, 1 of which
     (control matrix) is impregnated with a nutrient medium, a reagent and a
     water soluble culture-fixing agent capable of localising microorganisms on
     the matrix and the others of which (test matrix/matrices) are additionally
     impregnated with at least 1 inhibitory agent each, and
          (b) opt. a substrate attached to the matrices and a sealable
     container enclosing the matrices and substrate
          USE - The test device provides a single step test which will:
          (a) identify both the presence of microorganisms and their
     susceptibility to inhibitory agents;
          (b) determine the bacterial load in substances intended for admin. to
     or intake by animals or plants and the efficacy of a disinfectant(s) in
     reducing such a load, and
          (c) determine the bacterial load on any inanimate surface and the
     efficacy of a disinfectant(s) in reducing such a load (all claimed).
           It can be used for testing for microorganisms in e.g. urine, spinal
     fluid, blood, milk, food, tissue, ground water, cooling water,
     pharmaceutical prods. or sewage.
     Dwq.0/2
     CPI
FS
FΑ
     AB; DCN
     CPI: A12-L04B; A12-V03C2; C02-C; C02-Z; C04-B04B1; C04-B04D5; C04-B04H;
MC
          C04-B04K; C04-F01; C07-D13; C11-C08; C12-K04A; D03-B09; D03-K03;
          D03-K04; D04-A01H; D05-H04; D05-H05; D05-H06; D05-H09
    ANSWER 21 OF 27 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
     1995-178631 [23]
                        WPIX
     2001-335013 [33]
                        DNC C1995-082674
DNN N1995-140283
     In vivo detection of urease-producing Helicobacter - using two
     reagents which react differently, through colour change, to the increase
     in pH.
     B04 D16 S03
DC
IN
     MARSHALL, B; MARSHALL, B J
     (MARS-I) MARSHALL B; (MARS-I) MARSHALL B J
PA
CYC
    60
                   A1 19950504 (199523)* EN
                                             16p
                                                     A61K009-28
     WO 9511672
PI
        RW: AT BE CH DE DK ES FR GB GR IE IT KE LU MC MW NL OA PT SD SE SZ
         W: AM AT AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU JP KE KG
            KP KR KZ LK LR LT LU LV MD MG MN MW NL NO NZ PL PT RO RU SD SE SI
            SK TJ TT UA US UZ VN
     AU 9481270
                  A 19950522 (199534)
                                                     A61K009-28
                                                     A61K009-28
     EP 725633
                   A1 19960814 (199637)
                                         EN
         R: AT CH DE GB IE LI LU
     JP 09506246 W 19970624 (199735)
                                                     C12Q001-58
                                              17p
                                                     A61K009-28
                  A 19971111 (199801)
     BR 9407718
     CN 1139381
                  A 19970101 (199809)
                                                     A61K009-28
ADT WO 9511672 A1 WO 1994-US12332 19941025; AU 9481270 A AU 1994-81270
     19941025; EP 725633 A1 WO 1994-US12332 19941025, EP 1995-900448 19941025;
     JP 09506246 W WO 1994-US12332 19941025, JP 1995-512826 19941025; BR
     9407718 A BR 1994-7718 19941025, WO 1994-US12332 19941025; CN 1139381 A CN
     1994-194624 19941025
     AU 9481270 A Based on WO 9511672; EP 725633 A1 Based on WO 9511672; JP
     09506246 W Based on WO 9511672; BR 9407718 A Based on WO 9511672
PRAI US 1993-142600
                      19931028
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US 5262156; US 5314804

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ICM A61K009-28; C12Q001-58
IC
         A61K009-48; A61K009-54; C12Q001-04; G01N021-77
     ICS
          9511672 A UPAB: 20010625
     WO
AB
     In vivo detection of urease-producing Helicobacter (I) in the
     upper stomach comprises: (i) obtaining at least 2 separate gps. of dense
     carriers; (ii) combining the first gp. with a first reagent indicator
     (R1); (iii) combining the second gp. with a combination of a second
     reagent indicator (R2) and urea; (iv) encapsulating R1 and the R2-urea
     combination in a soluble capsule; (v) administering the capsule to a
     patient; (vi) causing the capsule to migrate to the gastric mucosa through
     the density of the carriers; (vii) dissolving the capsule containing R1 and
     R2-urea in the gastric juices, such that R1 and R2-urea are placed in
     direct contact with the gastric mucosa, allowing the urea to react with
     any urease present in the stomach, thus creating ammonia, the ammonia
     causing the pH within the stomach to increase, this causing R1 and R2 to
     react to the increase in pH, the reaction being viewed through endoscopy.
     A diagnostic device is also provided.
          USE - The method is useful for in vivo diagnosis of upper
     gastrointestinal diseases, esp those mediated by infection of gastric
     mucosa by Helicobacter pylori.
          ADVANTAGE - The novel method of detecting alkaline pH change in vivo
     cuts down the number of biopsies required and is safe for patients having
     any bleeding tendencies. It is also a rapid, low cost test. Additionally,
     through the colour change, it can be determined if the change is a true
     positive or a false positive reaction.
     Dwq.0/1
     CPI EPI
FS
FΑ
     AB; GI; DCN
     CPI: B04-F10; B04-L05; B10-A13C; B11-C07B1; B12-K04A; D05-H04
MC
     EPI: S03-E04E; S03-E14H9
     ANSWER 22 OF 27 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
AN
     1994-065673 [08]
                        WPIX
                        DNC C1994-029513
DNN N1994-051382
     System for monitoring cell cultures in multi-well tray - uses lid with
     printed circuit board connectable to monitoring circuitry with pairs of
     conductive pins projecting through lid to enter wells.
DC
     D16 S03 V04
     HUBER, O W; MALIN, P J; WADA, K R
IN
     (CELL-N) CELLSTAT TECHNOLOGIES INC; (ONCO-N) ONCOTHERAPEUTICS
PA
CYC
     20
                                              31p
                   A1 19940217 (199408)*
                                                     C12M001-18
PΤ
     WO 9403583
        RW: AT BE CH DE DK ES FR GB GR IT LU MC NL SE
         W: CA JP KR RU US
                   A1 19950531 (199526) EN
                                                      C12M001-18
     EP 655086
         R: AT BE CH DE FR GB IT LI LU NL SE
                   W 19960116 (199642)
                                              32p
                                                      G01N027-04
     JP 08500438
                                                      C12Q001-00
     US 5643742
                   A 19970701 (199732)
                                              11p
     EP 655086
                   A4 19970625 (199746)
                                                      C12M001-18
                                                                      <--
                                                      G01N027-04
     JP 3288378
                   B2 20020604 (200240)
                                              11p
                                               10p
                                                     G01N027-04
     JP 2002116170 A 20020419 (200243)
                                                      C12M001-18
                   B1 20031217 (200404)
     EP 655086
         R: AT BE CH DE FR GB IT LI LU NL SE
     DE 69233275
                   E 20040129 (200416)
                                                      C12M001-18
     WO 9403583 A1 WO 1992-US6269 19920729; EP 655086 A1 EP 1992-916640
ADT
     19920729, WO 1992-US6269 19920729; JP 08500438 W WO 1992-US6269 19920729,
     JP 1994-505231 19920729; US 5643742 A Cont of US 1990-503791 19900403,
     Cont of US 1992-883063 19920508, WO 1992-US6269 19920729, CIP of US
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1993-125507 19930923, US 1995-374542 19950323; EP 655086 A4 EP 1992-916640 ; JP 3288378 B2 WO 1992-US6269 19920729, JP 1994-505231 19920729; JP 2002116170 A Div ex WO 1992-US6269 19920729, Div ex JP 1994-505231 19920729, JP 2001-230655 19920729; EP 655086 B1 EP 1992-916640 19920729, WO 1992-US6269 19920729; DE 69233275 E DE 1992-633275 19920729, EP

1992-916640 19920729, WO 1992-US6269 19920729
EP 655086 A1 Based on WO 9403583; JP 08500438 W Based on WO 9403583; US 5643742 A Based on WO 9403583; JP 3288378 B2 Previous Publ. JP 08500438, Based on WO 9403583; EP 655086 B1 Based on WO 9403583; DE 69233275 E Based

Based on WO 9403583; EP 655086 BI Based on WO 9403583; DE 6923327 on EP 655086, Based on WO 9403583

PRAI WO 1992-US6269 19920729

REP US 3743581; US 3890201; US 4072578; US 4246343; US 4264728; US 4156180; US 4230983; US 4789635; US 4801546

IC ICM C12M001-18; C12Q001-00; G01N027-04 ICS C12M001-42; C12N001-00; C12Q001-02;

C12Q001-06; C12Q001-08; C12Q001-20;

G01N027-02; G01N033-48; G01N033-483

ICA C12M001-34; C12M003-00

AB WO 9403583 A UPAB: 19940407

Cells being cultured in a multicell tray are electronically monitored. The appts. includes a lid which, in use, blocks the open mouths of the wells and includes on its top surface a PCB. A series of pin sockets, one for each trace of the PCB, passes through the lid, each supporting one conductive pin which is positioned to enter a well. A pair of pins enter each well so that a voltage can be applied across them and the resulting signals transferred to the circuitry for monitoring using a computer.

USE/ADVANTAGE - The system monitors the records and growth of cells being cultured in a laboratory. There is good electrical connection between the pins and PCB traces. The system achieves high stability giving precise measurements. It does not harm the cells.

Dwg.4/6

FS CPI EPI

FA AB; GI

MC CPI: D05-H09

EPI: S03-E02D; S03-E14H9; V04-Q02A

ABEQ US 5643742 A UPAB: 19970806

A method for electronically monitoring and recording cells being cultured in a laboratory tray having a plurality of separate wells, each of the plurality of separate wells adapted for holding a quantity of cell growth media in which cells may be cultured, the method comprising the steps of: a. providing a laboratory tray having a plurality of separate wells, each of the wells adapted for holding a quantity of cell growth media in which cells may be cultured; b. disposing a pair of electrically conductive, elongated pins respectively through an open end of each of the wells in the laboratory tray to extend into cell growth media held therein; c. supplying an alternating current voltage for selective application across a pair of the electrically conductive, elongated pins for electronically monitoring and recording cells being cultured in the laboratory tray; d. prior to selecting a pair of the electrically conductive, elongated pins for application of the alternating current voltage, determining a delay period for the alternating current voltage equivalent to an interval of time between the alternating current voltage having an instantaneous potential of zero volts and having an instantaneous potential equal to the maximum voltage of the alternating current voltage; and e. upon selecting a pair of electrically conductive, elongated pins for application of the alternating current voltage, measuring electrical conductivity between the pair of electrically conductive, elongated pins, at a point where the alternating current voltage reaches a maximum voltage, the point being set by the delay period. Dwg.0/6

- L51 ANSWER 23 OF 27 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
- AN 1994-009123 [02] WPIX
- DNC C1994-003666
- TI Device for carrying out numerous microbiological tests is subdivided into test areas by lines containing antibacterial agent, preventing interference between adjacent areas.
- DC B04 D16

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gitomer - 09 /977539
IN
     CITRI, N
     (YISS) YISSUM RES & DEV CO; (YISS) YISSUM RES DEV HEBREW UNIV JERUSALEM
PΑ
CYC 18
                                                     C12M001-20
                  A1 19940105 (199402)* EN
                                               7p
                                                                     <--
PΙ
     EP 576753
        R: AT BE CH DE DK ES FR GB GR IT LI LU MC NL PT SE
                                               бр
                                                     C12M001-34
     JP 06078747 A 19940322 (199416)#
                                                                     <--
     US 5344761
                  A 19940906 (199435)#
                                               5p
                                                     C12Q001-02
                                                                     <--
                                                     C12M001-20
                                                                     < - -
     EP 576753
                  B1 19971105 (199749) EN
                                               7p
         R: AT BE CH DE DK ES FR GB GR IT LI LU MC NL PT SE
                  E 19971211 (199804)
                                                     C12M001-20
     DE 69223045
    EP 576753 A1 EP 1992-306115 19920702; JP 06078747 A JP 1992-198355
ADT
     19920724; US 5344761 A US 1992-909788 19920707; EP 576753 B1 EP
     1992-306115 19920702; DE 69223045 E DE 1992-623045 19920702, EP
     1992-306115 19920702
FDT DE 69223045 E Based on EP 576753
PRAI EP 1992-306115
                     19920702
     1.Jnl.Ref; DE 2840830; FR 1331874; FR 2350106; GB 2134781; JP 59122565; US
     3838012; US 4087332
     ICM C12M001-20; C12M001-34; C12Q001-02
IC
     ICS C12M001-18; C12N011-12; C12Q001-04;
          C12Q001-18
           576753 A UPAB: 19940223
     EP
AΒ
     The solid support for bacterial culture has an adsorbent testing surface
     for solid-phase bacterioloical testing. The surface is sub-divided by
     intersecting lines of antibacterial compositions into many individual test
     areas. The lines serve as barriers for preventing interference between
     adjacent test areas.
          Pref embodiment uses a filter paper pad impregnated with a
     starch-iodine mixture and cut into a rectangular strip (2) at the end (3)
     of which are triangular extensions (4,6). A meandering switchback line (8)
     is drawn using a permanent marker. The line defines two pairs of
     closed-end channels (10,12,14,16) whose open ends are open to fluid
     diffusion of solns. deposited on extensions (4,6). Spots of
     benzylpenicillin (18,20) are deposited in the mouths of channels (10,14)
     and spots of cloxacillin in the mouths of the other channels (12,16).
     Extension (4) is dipped in clean control milk and extension (6) in
     specimen milk to be tested. If the specimen contains beta-lactase, its
     activity against benzylpenicllin and cloxacillin is assessed by observing
     discolouration of the test channels as compared with the adjacent control
     channels. Pref. the lines contain an aniline dye. The composition
     containing the dye may be Brilliant Green or ink. The testing surface may
     be supported on a solidifying growth medium, especially one contg agar-agar.
          USE/ADVANTAGE - The device may be used for microbiological assays.
     Increased density of testing areas can be provided without any structural
     barriers.
```

Dwq.0/1

FS CPI

AB; DCN FΑ

CPI: B02-P03; B04-C02B2; B04-F10; B04-L05B; B05-C07; B11-A01; MC B11-C08E1; B12-K04; D05-H; D05-H09

5344761 A UPAB: 19941021

Solid support for bacterial culture has an absorbent testing surface for solid phase bacteriological testing comprises non-diffusing lines of water-insol. antibacterial compsn. comprising aniline dye inhibiting bacteria, subdividing the surface into adjacent test areas. The antibacterial compsn. serves as a barrier for preventing interference between adjacent test areas. The surface includes a bacterial growth medium or is supported on a solidifying bacterial growth medium.

USE/ADVANTAGE - For carrying out microbiological assays. It allows greater increase in density of testing areas without requiring any structure barriers. It is applied to any form or shape of solid assay, and is not subject to limitations inherent to the design or modification of bacteriological culture wave.

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Dwg.0/1
           576753 B UPAB: 19971211
ABEQ EP
     A solid support for bacterial culture of the type having an absorbent
     testing surface for solid phase bacteriological testing, comprising a
    plurality of intersecting lines of antibacterial compositions subdividing
     said surface into a multiplicity of individual test areas, said
     antibacterial compositions serving as an effective barrier for preventing
     interference between adjacent test areas.
     Dwg.0/1
L51 ANSWER 24 OF 27 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
     1990-290337 [38]
                        WPTX
ΑN
DNC C1990-125360
     Culturing cells and identifying products - using surface divided into
     growth areas to limit amount of growth medium available.
DC
     A97 B04 D16
     SNEATH, P H A; SNEATH, P H
IN
     (UYLE-N) UNIV LEICESTER
PΑ
CYC 18
                  A 19900907 (199038)*
PΙ
     WO 9010056
        RW: AT BE CH DE DK ES FR GB IT LU NL SE
         W: AU CA JP SU US
                  A 19900926 (199050)
     AU 9051684
                   A 19911218 (199151)
         R: AT BE CH DE ES FR GB IT LI LU NL SE
                                                     C12N001-00
     JP 04507191
                 W 19921217 (199305)
                                              10p
                                                     G01N033-569
     US 5264344
                   A 19931123 (199348)
                                               8p
    EP 461153 A EP 1990-903906 19900228; JP 04507191 W JP 1990-503955
     19900228, WO 1990-GB316 19900228; US 5264344 A WO 1990-GB316 19900228, US
     1991-752453 19911101
FDT JP 04507191 W Based on WO 9010056; US 5264344 A Based on WO 9010056
                      19890304
PRAI GB 1989-5001
REP EP 62457; GB 2175313; US 4485171; US 4537860; US 4661458
     ICM G01N033-569
IC
         C12M001-18; C12M003-00; C12N001-04; C12N005-00;
     ICS
          C12Q001-24
          9010056 A UPAB: 19930928
AB
     WO
     A method of culturing cells which produce prods and encouraging the cells
     to produce prods and identifying the prods is claimed, characterised in
     that the cells are cultured on the surface of a growth medium, which
     surface has been divided into growth areas limiting the amt of growth
     medium which is available to the cells so that these reach a metabolic
     stage in which the prods are produced, and identifying the prods by an in
     situ screening procedure.
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The growth medium may be bounded by a membrane formed of eg polyethylene or metal. A non-toxic coloured material, eg Indian ink, may be applied to the surface of the membrane which contacts the medium and is partially transferred to the medium. A detergent, eg polyoxyethylenesorbitan may be added to the coloured material to assist transfer. Also claimed is a membrane for use in culturing cells and encouraging these to produce prods, characterised in that the membrane contains apertures of circular cross section each defining an area of 0.8-113 mm2.

ADVANTAGE - Use of the membranes increases the speed of work involving numerous microorganisms or cells, increases the likelihood that each aperture contains a pure culture and enables automation and standardisation of techniques involving cell culture in industrial processes. The method aids automatic inoculation aspects and automatic detection of required cell prods by restricting cell growth to designated positions.

FS CPI

AB; DCN FA

CPI: A12-V03C2; A12-W11L; B02-Z; B04-B02B; B04-B02C; B04-B04A; MC

B04-B04C5; B04-C03B; B10-C02; B11-C08E1; B12-K04A; D05-H02; D05-H08; D05-H09; D11-B02 ABEO US 5264344 A UPAB: 19940120 Cell products are produced from cells in a growth arrest metabolic stage by growing cells on the surface of a nutrient medium divided into spaced growth areas by contacting the surface with a removable impermeable film having spaced apertures defining areas of medium available to the cells. Non-toxic coloured material is applied to the film surface contacting the medium and is partially transferred to the medium surface to permit identification and location of cells. The film is pref. of polyethylene or a metallic material, can be retained in a Petri dish and has circular apertures of 3-13 mm2 area and spaced by 6-10mm in rows and columns. Polyoxyethylenesorbitan is pref. added to the coloured material, which may be an Indian ink, to assist transfer to the medium. USE/ADVANTAGE - E.g. for prodn. of antibiotic, anti-tumour agent such as mitomycin C or heat-stable enzyme, facilitates in-situ screening and handling. Dwq.0/6 L51 ANSWER 25 OF 27 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN 1990-164029 [21] WPTX ANDNC C1990-071559 DNN N1990-127298 Liquid sampling appts. - has transverse partition separating container into TIcompartments housing actuating and sampling parts of sampling member. DC: B04 D16 J04 S03 FUNKE, H; HOLMBERG, O; LUNDIN, A TN (FUNK-I) FUNKE H; (HOLM-I) HOLMBERG O; (LUND-I) LUNDIN A PACYC 21 A 19900503 (199021)* EN 16p PΤ WO 9004647 RW: AT BE CH DE FR GB IT LU NL SE W: AU BR DK FI JP KP KR LK NO US SE 8803834 A 19900427 (199026) A 19900514 (199031) AU 8944814 A 19910814 (199133) EP 440699 R: AT BE CH DE FR GB IT LI LU NL SE B 19920309 (199213) SE 466604 B1 19941221 (199504) EN10p C12Q001-24 EP 440699 R: AT BE CH DE FR GB IT LI LU NL SE DE 68920154 E 19950202 (199510) C12Q001-24 ADT EP 440699 A EP 1989-911908 19891025; SE 466604 B SE 1988-3834 19881026; EP 440699 B1 EP 1989-911908 19891025, WO 1989-SE594 19891025; DE 68920154 E DE 1989-620154 19891025, EP 1989-911908 19891025, WO 1989-SE594 19891025 EP 440699 B1 Based on WO 9004647; DE 68920154 E Based on EP 440699, Based on WO 9004647 19881026 PRAI SE 1988-3834 REP EP 128422; US 4136680; WO 8607094 C12M001-28; C12Q001-24; G01N031-22 IC ICM C120001-24 C12M001-28; C12Q001-66; G01N031-22 9004647 A UPAB: 19941115 AB Liquid sampling appts., comprises a container (1) or at least one sampling member (11) which is exposable and retractable w.r.t. a sampling part (15) joined to an actuating; part (13). The two parts (13,15) are at opposite sides of a transverse partition (7) separating the container into two compartments (3,5). Pref. the container has a pivotally openable and closable end wall, and the sampling member (11) has two detachable sampling elements (17,19). USE - Taking urine samples, or milk samples in testing cows for mastitis. 1/5@

Dwg.1/5 CPI EPI

FS

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FΑ
    AB; GI; DCN
    CPI: B04-B04B; B11-C06; B11-C08C; B12-K04A; B12-L09;
MC
          D03-B09; J04-C
     EPI: S03-E13B; S03-E14A
ABEQ EP
           440699 B UPAB: 19950201
     Device for sampling a liquid medium comprising a container (1) which by a
     transverse partition (7) is divided into two compartments (3,5) containing
     at least one sampling element (11) comprising an operational part (13)
    placed in one compartment (3) and a sampling past (15) placed in the other
     compartment (5), the end wall of the container (1) in connection with said
    other compartment being provided with an opening (29) opposite to the
     sampling member (11) through which said member by means of the respective
     operational part (13) can be pushed out of the container (1) for exposing
     the sampling part (15) and for the uptake of sample thereon and then be
     retracted into the container (1) for protection during transportation,
     characterised in that said other compartment (5) is substantially closed
     against the environment and contains a drying agent.
     Dwg.1/5
    ANSWER 26 OF 27
                     WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
L51
AΝ
     1985-190029 [32]
                        WPIX
DNC C1985-083108
     Multi dish container for typing microorganisms especially pathogens - has
     individual filling passage into each dish which has pre-sealed removable
     cover.
DC
     D16
     BRUSEWITZ, G; SIECK, R; BRUESEWITZ, G
IN
PA
     (MADU) MADAUS & CO GMBH; (MADU) MADAUS AG
CYC 26
                   A 19850722 (198532)*
                                              21p
PΙ
     BE 901538
     GB 2156517
                   Α
                     19851009 (198541)
                     19851031 (198545)
     DE 3434851
                   Α
                     19850927 (198545)
     FR 2561659
                   Α
                     19851016 (198546)
     NL 8403938
                   Α
     PT 80101
                     19851003 (198546)
                   Α
     SE 8501431
                   Α
                      19850927 (198546)
                      19851021 (198549)
     NO 8501189
                  Α
     AU 8540341
                      19851003 (198551)
                  Α
     JP 60224485
                      19851108 (198551)
                   Α
     BR 8501339
                   Α
                     19851119 (198601)
     DK 8501337
                   Α
                     19850927 (198601)
     FI 8501151
                   A 19850927 (198603)
                   A 19850925 (198605)
     ZA 8502214
                   A 19860129 (198622)
     DD 232508
                   A 19861231 (198702)
     CH 659083
     JP 62034389
                  B 19870727 (198733)
                   Α
                     19870901 (198737)
     US 4690896
                      19880106 (198801)
                   В
     GB 2156517
                   С
                      19880407 (198814)
     DE 3434851
     KR 8800455
                   В
                      19880406 (198837)
     AT 8500699
                   Α
                      19890115 (198908)
                   Α
                      19890131 (198912)
     CA 1249502
                   В
                      19871112 (199042)
     IT 1185517
                                                     C12Q001-04
                   В
                      19930616 (199326)
     NL 190165
                                               q8
                     19940905 (199434)
     DK 169181
                   В
                                                     C12M001-16
                                                                      <---
    BE 901538 A BE 1985-901538 19850121; GB 2156517 A GB 1985-3168 19850207;
ADT
     DE 3434851 A DE 1984-3034851 19840922; FR 2561659 A FR 1985-592 19850116;
     NL 8403938 A NL 1984-3938 19841224; JP 60224485 A JP 1985-59732 19850326;
     ZA 8502214 A ZA 1985-2214 19850325; US 4690896 A US 1985-696533 19850130;
     DE 3434851 C DE 1984-3434851 19840922; NL 190165 B NL 1984-3938 19841224;
     DK 169181 B DK 1985-1337 19850325
    DK 169181 B Previous Publ. DK 8501337
FDT
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PRAI DE 1984-3411072 19840326; DE 1984-3434851 19840922

IC C12M001-18; C12Q001-04; G01N033-48

ICM C12M001-16; C12Q001-04

ICS C12M001-18; G01N033-48

AB BE 901538 A UPAB: 19930925

The container is of the type in which the individual dishes are charged with nutrients, e.g. agar-agar, and where a removable cover is fitted over each pocket. Several long dishes extend longitudinally upon a support frame and the nutrient in each dish is covered with a removable waterproof protector e.g. plastic film bonded to the edge of the dish. integral with the support frame at one end is a set of filling passages, one passage leading into each dish.

Pref. each of the filling passages is pref. in the form of a short pipe. The pipe ends are plugged simultaneously by spigots on the underside of a cover plate. The support frame is housed inside at one end while the other end is sealed by the cover plate as the plug spigots enter the filling passages.

USE/ADVANTAGE - The dishes are for microbiological tests to determine the type and concentration of microorganisms, partic. germs. Used by doctors

and

hospitals for diagnostic work and for checking germ levers in controlling the hygiene of industrial processes, e.g. food mfr.. The dishes are fitted with removable waterproof cover films to avoid drying out are contamination of the nutrient. The pre-covered sterile dishes can be automatically filled in sterile fashion using hollow needles via the filling passages. No possibility of migration of particles between dishes. 0/15

FS CPI

FA AB

MC CPI: D05-H02; D05-H04; D05-H05; D05-H06

ABEO DE 3434851 C UPAB: 19930925

Device for the determination of microorganisms is a vessel with a cover in which an elongated carrier element is enclosed. The latter has several recesses to receive a nutrient medium. Each recess has a filler opening on top which can be closed by a stopper attached to the cover.

ADVANTAGE - The complete devices can be produced by machines for all necessary operations under sterile conditions. They have a long shelf life without loss of sterility.

ABEQ GB 2156517 B UPAB: 19930925

Device for the determination of micro-organisms, comprising a vessel closable with a cover in which vessel is housed a nutrient medium carrier in the form of a longitudinal carrier body which has a plurality of troughs for the reception of nutrient substrate substances, said troughs being provided with a removable covering, wherein at least one closable filler connection, formed on the carrier body, opens into each trough.

ABEQ US 4690896 A UPAB: 19930925

Micro-organisms determin. appts. comprises vessel with removable cover and contg. a long body divided into several lengthwise troughs for receiving nutrient substrate substances, each trough having a removable cover and the body having top closable filler connections to the troughs.

The filler connections are partially formed by a common encompassing wall following the cross-sectional shape of the body. Pref. the filler connections intersect, and at the intersection is a blind hole into which engages a pin of the removable cover, which screws onto the vessel.

USE/ADVANTAGE - Fully sterile storage of incubating cultures during determn. ofpathogens content.

ABEQ NL 190165 B UPAB: 19931116

Microorganisms are concentrated in equipment comprising a vessel with sealing lid and contg. an oblong body supporting a nutrition base. This has a number of phials accommodating ingredients for the base and with a removable top cover. A filler union on a supporting body delivers into each phial and can be shut off. The removable cover is of thin flexible sheet material sealed to the supporting body, and there is a separately-detachable piece of sheet material on each phial. All the unions can be on

the top of the supporting body, and where the latter is plate-shaped with phials on both surfaces, the unions on the top surface can be offset from each other.

ADVANTAGE - All manufacturing operations can be achieved mechanically and free of germs. The equipment can be stored for a long period without reducing sterility. Dwg.0/10

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L51 ANSWER 27 OF 27 WPIX COPYRIGHT 2004 THOMSON DERWENT on STN
AΝ
     1982-79577E [38]
                       WPIX
     Microorganisms test tray - has cells divided into sample and reagent wells
TТ
     by sloping barrier.
DC
     D16 Q32
IN
     ENOMOTO, S; IIDA, T; KIMURA, M
PΑ
     (EIKE-N) EIKEN-CHEM CO LTD
CYC
                  A 19820922 (198238) *
PΙ
    GB 2094831
                                              6p
    DE 3128415 A 19820930 (198240)
     FR 2502173 A 19820924 (198245)
     US 4370419 A 19830125 (198306)
     GB 2094831 B 19840822 (198434)
    DE 3128415 C 19850530 (198523)
                В 19870610 (199004)
     IT 1171435
    GB 2094831 A GB 1981-21661 19810714; DE 3128415 A DE 1981-3128415 19810717
PRAI JP 1981-38022U
                     19810318
    B65D001-36; C12M001-18; C12Q001-04
```

AB GB 2094831 A UPAB: 19930915
A tray has a cover and a plastics or glass body divided by transverse partitions into cells. Each cell is dived by a barrier with its top lower than the partition into a well for bacterial suspension and a second well. The barrier slope up from the first cell at a low gradient to the barrier

top and then falls abruptly as the side of the second well.

Each second well pref. has two shallow recesses in its base to hold growth media components. The partitions are pref. 2 mm lower than the peripheral wall and the cover has outwardly diverging vent passages. The arrangement facilitates pouring of suspension and prevents backflow from the second cells.

FS CPI GMPI

FA AB

MC CPI: D05-H04; D05-H05; D05-H06

ABEQ GB 2094831 B UPAB: 19930915

A tray for identifying microorganisms comprising a tray body made of a plastics material or glass and a cover, the tray body being divided into a number of cellular compartments by partition walls arranged at substantially equal intervals along the length of the tray body with each of the cellular compartments being divided into a larger cell for bacterial suspension and a smaller cell by a crest-shaped barrier formed substantially at the centre of the respective cellular compartment, the barriers being so formed that their top portions are lower in height than the upper surfaces of the partition walls, wherein each crest barrier comprises a slope portion rising from the cell for bacterial suspension and a substantially more steep slope portion dropping downwards to the smaller cell, and wherein the small cell of each cellular compartment has at least two wells or shallow recesses formed on its bottom surface, the cells for bacterial suspension being in communication with their respective smaller cells over the respective barriers.

ABEQ DE 3128415 C UPAB: 19930915

A dish for identifying microorganisms is in the form of a tray with lid made of plastics or glass. The tray is subdivided into numerous cells by transverse partitions, each cell being further subdivided into a large compartment for bcaterial suspension and smaller compartment for reagent, with a crest sepg. the two compartments; this crest slopes up gently from the larger, bacterial suspension compartment and drops vertically into the

smaller, reagent compartment.

The partitions between cells are substantially of the same height as the peripheral wall of the tray or dish except for the end of the bacterial compartment furthest from the small cell; here the partition is approx. 2 mm above the bottom of the cell and in the region of the peripheral wall of the tray it is formed as an end wall.

USE/ADVANTAGE - For identifying microorganisms by means of reagents.

The form of the cells achieves highly uniform results.